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THE EDITOR'S FARM NOTES.

CANADIAN FIELD PEAS.

We sowed a portion of an old garden to field peas last Monday. The oats will be sown in a few days, and this will be our first attempt to grow oats and peas for a forage or soiling crop.

The peas were sown at the rate of two bushels per acre. The drill did not put the seed into the soil deep enough, and it would have been better to have plowed them under. However, on a well fitted, mellow seed bed the drill hoes can be given more slant and also weighted and the peas deposited nearly four inches deep, in our soil.

We advise brother dairy farmers to try a small patch, at least, of Canadian field peas. Even if you do not need them all for feed, they can be left to mature and fall back on the land, then be plowed under for fertilizing purposes. As the vines wander more or less, it may be difficult to plow through them. But would not a good rolling coulter on the plow beam help matters somewhat?

ABOUT RURAL MAIL DELIVERY.

I see that you are interested in free mail delivery. On the route from here to Pontiac there are 24 farmers who pay about \$3 a year to have their mail delivered daily at their door. This is one of the best proofs that they like it.

OAKLAND CO., MICH. WM. R. DREWATT.

No doubt they like it. Where is the wide-awake, progressive, reading farmer who would not, under any practicable arrangement, be willing to do all he reasonably could to secure rural mail delivery.

Let us work for this result. Write and talk about this delivery whenever and wherever you can, and keep up the agitation. The Postmaster-General and Congress should be urged to further extend the experiments inaugurated, and, if successful in operation, enlarge the system.

COWPEAS.

In this latitude cowpeas will do best on sandy or gravelly loam soil. Our experiment will be on a sand and clay loam. The seed bed should be prepared the same as for wheat or oats.

When grown for the purpose of turning under, it is better to sow in drills. This we shall do by letting all the hoes run, as in sowing small grains, and at the rate of one and one-half bushels per acre.

A southern report in an exchange says that the greatest value of the cowpea lies in the property which it has of restoring worn soils. This property it shares with all leguminous plants, and it surpasses them all in producing the maximum results in a minimum of time. Clovers, trefoil, lupines and alfalfa are used in different countries as soil-renovators. They are planted in fall or spring, and occupy the ground the entire season or longer for best results. In the South the cowpea is planted in the late spring or summer, and the crop of vines or peas is harvested or buried for fertilizing purposes in early fall.

The growth and development of this plant is both rapid and enormous, particularly when planted on good land. It probably assimilates more plant-food in a short time than any other leguminous plant. This property renders it of the highest value in a crop rotation, both as a collector of nitrogen and as a preparatory crop. It is not only the nitrogen which is added to the soil, but the great mass of humus or decaying vegetable matter obtained by plowing in a heavy crop of pea vines, and is rendered available for succeeding crops.

It seems that there is a multitude of

varieties of cowpeas, but the large early Black is the favorite variety. At the Rhode Island Experiment Station this variety yielded over 35,000 pounds of green vines per acre. This contained more than 150 pounds nitrogen, thus showing its value as a nitrogen trap.

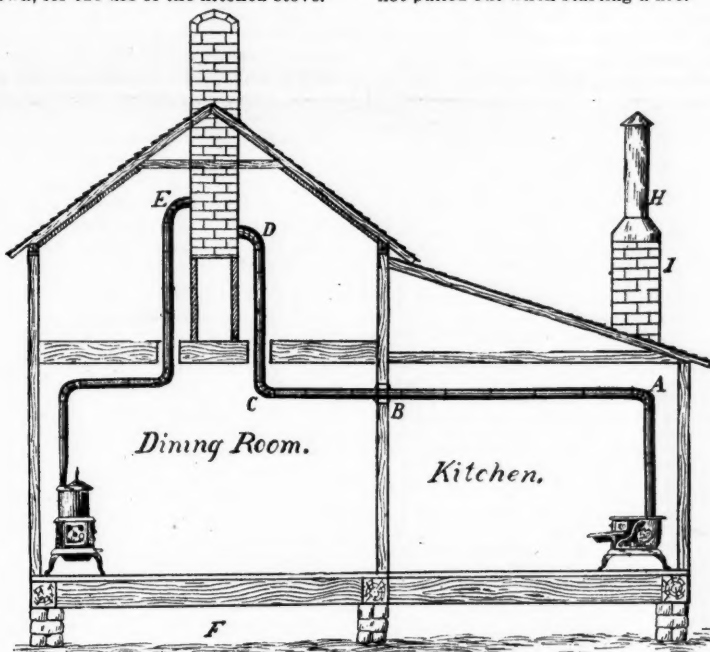
At the Louisiana Station the average analysis of the six best varieties, grown for three years in succession, on the same land, was as follows:

Variety.	Lbs. Nitrogen.	Lbs. Phosphoric Acid.	Lbs. Potash.
Black.....	96	19½	81½
Unknown.....	88	17	78
Indian.....	79	18	63½
Red.....	70½	17	65
Clay.....	64	14½	53
Whippoorwill.....	55½	10½	40½

ONE CHIMNEY BETTER THAN TWO.

On this page we have a cut showing a cross section of a farm house. We made this to show how many an "upright" with "lean to" and chimneys are constructed.

The usual plan is to build a chimney on the upright for connection with the stove or stoves in that part. Also to place one on the roof of the "lean to," about as shown, for the use of the kitchen stove.



ONE CHIMNEY BETTER THAN TWO.

During the last month we have called at two farm houses where "the lady of the house" was very much "troubled over the chimney's smoking so bad that it was almost impossible to work in the kitchen." Such cases are very frequent and yet, many times, the whole trouble may be obviated entirely by discarding the chimney on the lean to.

As hundreds of our brother farmers live in farm houses where this trouble occurs every time the wind is just right (wrong), we give our "recipe" for banishing the smoke nuisance.

Our own house has a small kitchen built on the back end, very similar to that shown in the cut. The chimney was placed at I, with a sheet-iron pipe (H) continuation above, running a little higher than the ridge of the upright.

From the very first day we started a fire in the kitchen stove the smoke nuisance began, combined with an occasional accompaniment of creosote to flavor the whole. We tried every plan and change that could be suggested except one. Remember that at this time the smoke pipe ran direct from the kitchen stove up into

the lean-to chimney with but one elbow in the pipe.

Several brother farmers sympathized with us, for they had "been there." Finally we decided to discard the lean-to chimney entirely. It had cost us several dollars, and more than twice as many real hard thoughts that would not look well printed in any department of the FARMER.

A hole was cut through the wall between the kitchen and dining room (B) and a pipe thimble or ventilator inserted. Another ventilator was put in the ceiling above C.

Lengths of tight fitting pipe were riveted together to reach from A to C. The pipe holes in the chimney were not made directly opposite each other. The pipe was now put together, and a tight fit made from the kitchen stove, in every joint, up to the upright chimney.

This arrangement leaves about 30 feet of stove pipe, with three joints, A. C. D., but the stove has not smoked a single time since. It has been used this way for three years, and the pipe always has a strong draft; so much so sometimes that the back damper is not pulled out when starting a fire.

upright and "lean to" on one side, the common practice is to use the lean to for a kitchen or sitting room. The stoves that run almost constantly in cold weather are in this part.

The upright generally contains the parlor and bedroom below, with sleeping rooms above. Underneath this upright is the cellar. In very cold weather the chamber sleeping rooms are too cold, and there is more danger of the cellar freezing.

Our house is arranged to use the upright for sitting room and dining below, with the large coal stove on the sitting room floor. The cellar is below this upright, and the chamber sleeping rooms above. This provides continual warmth where most needed. The side lean to is used for a parlor and one bedroom.

April 15, 1897.

For the Michigan Farmer.

DRILLING FIELD CORN.

I see in your editorial notes on Alvord's corn crop report, you think of drilling. Now I would run a light harrow after the drill, either with corn or beans, for fear of rain running down the drills marks.

I usually take off all the hoes, leaving one each side of the one drilling the seed. Fill a bag partly full of bran to keep the grain from going all over the box. The lighter you get the drill, the nearer straight the rows will be. I think you are getting the rows too close together.

The difficulty with drilling, to get a fairly even stand, is that the seed will be too thick. I would prefer the rows to be four feet or more apart. It looks plenty thin enough when it first comes up, but when you count up the stalks you find you have too many. I think land is cheaper than help, at the present time. The less the number of rows the cheaper the whole crop is handled.

I have thinned out the stalks with a hoe sometimes, but it is a slow job. I don't think drilled corn will cut with your machine as well as it would in the hill. The drilled corn pulls out easily.

If you haven't a team to spare for the harrow to run after the drill, nail two pieces of fence boards together, plank drag fashion: that is, lay one board back two inches, nail them together and fasten them to the hoes, at each end, so that they will rise and fall, boards and all. This attachment will drag along, filling up the furrows and pulverizing the ground on top of the seed.

You can run the weeder crosswise without doing any harm, both in beans and corn. I have tried this repeatedly, and usually work crosswise once at least.

OAKLAND CO., MICH.

WM. R. DREWATT.

[Your advice and suggestions will be of much value to us, as we have never tried this plan of growing corn. There are also hundreds of FARMER readers who are interested in the work of growing field corn in drills, rather than check rows.

Thick seeding does not pay, and the drill that will evenly distribute six quarts of corn, or less, per acre, in rows from three feet six inches to four feet apart, is to be recommended. Our wheat drill is guaranteed to do this and we shall soon test the matter.

With subsequent harrowing and judicious use of the horse weeder we hope to mature an average of not more than one stalk and ear to each 12 or 15 inches of space in the row.

It certainly pays to run a harrow or weeder over the ground immediately after planting or drilling, in order to obliterate the marks directly over the seed. On rolling ground a heavy rain would do considerable damage by washing out the corn. We thank you for your suggestions.—ED.]

In planning many farm houses, with an

For the Michigan Farmer.

POTATOES OF INFERIOR QUALITY VERY COMMON LAST YEAR.

I notice, Mr. Editor, that a correspondent writes in your valuable paper about unripe potatoes. It is true that in some parts of northern Michigan it is hard to get good ripe potatoes, especially some distance back from the lakes, where the early frosts kill the vines and they don't mature.

But along the "Lake belt," and north of Traverse City the fall frosts hold off longer than any place I was ever in, in this same latitude. This is caused by the warm lake water which keeps off the frosts.

Farmers are planting earlier than they used to a few years ago. So far as quality is concerned, there are no better potatoes grown in the United States than we produce in the western portion of Antrim County.

ANTRIM CO., MICH.

J. K. GURR.

[In our various trips into the northern counties, during the past winter, we found very poor potatoes on some of the hotel tables. This inferior quality we supposed to be the exception to the general rule, and know that northern Michigan usually produces excellent potatoes.—Ed.]

For the Michigan Farmer.

EARLY POTATOES AND HOW TO PRODUCE THEM.

To have or not to have early potatoes, is the question. We have the privilege of buying what we want, going without and eating old potatoes, or raise them in our own garden. Which will it be?

Now as most everybody has a garden, just suppose we raise a field and assert our independence. Here are some suggestions, some of which are old enough to be good, others are good enough to be tried: We often hear the complaint, "it's too much trouble." So to have the good will of all, we won't go to any trouble at all, at least not so much as it would be to hustle to market or to a neighbor who may have a few to spare and lose a quarter of a day's work at least.

But some might say they can't spare the ground, and that they would rather raise some sweet corn anyway. Well, as we would like to raise a few potatoes for everyone we won't quarrel about the ground, so we will raise both the early potatoes and the sweet corn on the same ground, and we are not seeking any trouble about it either. We want to raise just what our needs may be for early potatoes, and hurry up about it.

Now to begin this in the right way we will just select the sunny side of the best piece of ground we can spare. And as potatoes grow a longer time on low ground, and low ground being generally pretty wet this spring, we will try and have this patch on rather sandy high land. Use high land anyway, as we expect to draw out that big load or two of fine horse manure that has been in our way for such a long time. So we will load up, and when we throw it off we won't scatter it much, as that would take longer. So four square rods is all we will spread this big two-horse load on, but we will spread it even anyway.

The plow needs scouring up a little so we will plow it now, about six or seven inches deep so it will be easy on the team. And as it would not be advisable to discourage the team by plowing this same ground three, or even four, times to raise this crop of potatoes, we will get the harrow and pulverize the surface before it gets hard at all. Just level it off and go to the house and see about the seed potatoes.

We find them pretty scarce, as was to be supposed. However, we find a few Early Ohio seconds which are all we care to throw away on this early patch. We will just clip off those eyes on the side of the potatoes and leave one or two of the seed eyes only. They will be good enough.

Now as the weather seems favorable, we will go out the next day, and after dragging the ground once more we will plant these about twenty by thirty inches apart, with the seed end up and one piece in a hill, about three inches below the level of the ground.

They come up pretty quick, and perhaps we will have to cover them up with the cultivator when about an inch or two high to save them from Jack Frost, but we will give them level cultivation after this, if we have covered them up, and get the soil loose around the plants, as we can make the potatoes set where we want them this way.

I know we are pretty busy about this time, but we find by looking in the hills that there are some new potatoes set already and they have raised up to within two inches of the surface. So we take the cultivator and, after putting on the wings, we throw enough on these potatoes to keep them from getting sunburnt.

How about that corn? Oh yes, but there is plenty of time yet for that, and as we want something to do at odd times with the hoe, we will just plant some sweet corn in every other row, just about the middle. And as we don't want any foul stuff to grow up in the potato patch, we hoe the sweet corn a few times till those potatoes are large enough to eat. Then we can dig two rows of potatoes out from between two rows of sweet corn the last of June or the first part of July, and not much trouble either.

In digging the potatoes we have leveled the ground down again, and the corn grows so rapidly that we can't help but encourage it a little by giving it a good cultivation with a Planet Junior, or some other similar tool. We rest from our labors

here to reap our reward in a second early crop of sweet corn, and may the ears grow long and plenty this season.

In conclusion let me state that, through some error, an omission was made in one of my former articles in which I referred to an early white potato of great merit—the Early Harvest, the most promising early white potato out, I believe, and only a few days later than the Extra Early Ohio. The crop this season should be sufficient to supply all those who desire a nice potato, and at reasonable figures. We will report on this variety later.

EATON CO., MICH.

W. E. IMES.

[This should have appeared in the last issue, but came in after the matter was made up. As an expert potato grower, friend Imes' suggestions above will influence many to try this "intensive" plan.—Ed.]

For the Michigan Farmer.

LIKES ARTICHOKE.

I noticed an inquiry in your paper of April 10th, in regard to artichokes, and as you invite correspondence I will give you my experience, which is only limited, however, as I have only raised them one year.

I planted two bushels of seed in May, 1896, on high clay ground, in rows three and one-half feet apart one way, and cultivated the same as corn. They grew very fast and completely shaded the ground so there was not a weed in sight.

I did not cut the stalks until after frost had hurt them some, as I had seen a note in the FARMER that you considered them of very little value. After feeding our cows cornstalks for about four months in the early part of the winter, we commenced to feed artichoke stalks. Our cows gained two pounds of milk per day, per cow, with no increase of grain.

Our horses eat them better than cornstalks. We only gathered enough of the roots for planting and let the hogs have the rest of them. We have fifteen hogs on the little patch, with no other feed, and we think they will compare favorably with any like number fed on corn or any other feed.

We intend to plant one acre this spring, as we are satisfied we cannot grow the same amount of feed, of any other crop we know of, on double the amount of ground.

We should not like to plant them in an orchard, but would plant in a lot by themselves, where the hogs could have free access to them. I have the Improved White French variety.

IRA SNYDER.

SHIAWASSEE CO., MICH.

[The testimony in favor of artichokes almost makes us "wish we had some." Really, artichokes are of great value to feed hogs at this time of year, when one has a small patch contiguous to the hog house, where they may root at pleasure.

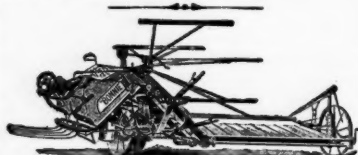
But we doubt whether they are of much more value than potatoes for feeding swine. It is more work to feed potatoes at this time of year, as they must be taken out of the cellar or pit, and should be steamed or cooked for best results. On the other hand, the hogs may be turned into the artichoke patch whenever desirable, and they can do their own harvesting.

We do not doubt that an immense crop of artichokes can be easily grown on a small patch of ground. And we should be tempted to try them ourselves, except we don't know where to put them. Our hog yards are in the apple orchard, and there is no other easily accessible place for growing them without fencing off a small field outside. The next snag we fear is that it will be extremely difficult to get rid of them, if we afterwards wish to use the ground for other purposes.

As to the value of the artichoke stalks, we personally think just as good results may be obtained from the strawstack. Our cows are now getting all the wheat and oat straw they will eat, as we wish to reduce the size of the strawstack, also work it into manure.

Very little straw had been fed until lately, and some of the cows have increased a little in the quantity of milk given daily. We think the straw had something to do with it, as it furnished a change or variety, and seemed to "whet their appetites."

We are glad to get this testimony from our friends Snyder, Taft and Bunnell, and may yet become converted to artichoke culture. In that case we fear it will eventually become more of a curse than a blessing. However, our sufferings will be nothing as compared with those of the early Christians.—Ed.]

**Harvesting Machinery.**

There are many things to be taken into account besides the mere ability of a mower to cut grass or of a binder to harvest and bind grain for the time being. Among these other considerations are durability and quality in material used and construction, rapidity and capacity for work, lightness of draft, ease of manipulation, adaptability to handling various crops, adaptability to hilly and level lands, economy in use of twine, oil, repairs, etc., etc. The embodiment of all these requisites predisposes the construction of an almost perfect machine. The Johnston Harvester Company, of Batavia, N. Y., have through long years of experience and constant study and experiment, produced a line of machinery that will bear the most rigid scrutiny as to construction and actual work in the field. Write these people for their catalogue before making your purchase.

For the Michigan Farmer.

MORE ABOUT ARTICHOKE.

Mr. John Chamberlin, of Wayne Co., asks in the FARMER of April 10th, about artichokes. I have raised them for a number of years and find them to be excellent for small boys and pigs.

I have not raised them in an orchard, and so can't tell what the effect would be upon apple trees. We have always grown them in the same patch. The first two years they were planted and taken care of just as we do potatoes. Since then they have been allowed to shift for themselves.

The best results were secured when we planted and cultivated them, both as to size and quantity.

We think it best to let them mature before turning the hogs into them; and as they are late in maturing we don't get much use of them in the fall before they are frozen in. We don't consider this objectionable, as we prefer that the breeding sows should have them in the spring. Rooting out the artichokes compels some necessary exercise, and the hogs always thrive on them and farrow strong healthy litters of pigs.

The Editor says he would prefer to grow and feed potatoes to the swine, rather than harbor a patch of artichokes on the farm. May I ask if it is because he thinks it is easier to grow potatoes, whether the potatoes are better for hogs, or whether it is because of the fear that if he once has artichokes he will always have them?

I have fed both potatoes and artichokes to swine and find them both good feed. I don't know which is the better, except that artichokes seem to me to be better at this time of year, as they are brittle and fresh. Then too, we avoid the digging and furnish the hogs some necessary exercise.

Whether it will be difficult to rid the ground of the artichokes, when it becomes necessary, is the staggering question; but I believe one hoed crop of potatoes or corn will rid the ground of artichokes.

So much in favor, and in defense, of the artichoke. Now what objection is there to them? I know of one; you can't put rings in the hogs' noses, and they may root where you don't want them to. More than that, they will root when and where they otherwise would not.

Three days ago we took a sow from the artichoke patch, returning her to an enclosure where she had passed last season and winter without rooting at all. She kept right on rooting until she had become thoroughly satisfied that she was no longer in the artichoke patch.

CALHOUN CO., MICH.

H. A. BUNNELL.

[An artichoke patch in which to turn our Duroc-Jersey breeding sows, for just the reasons friend Bunnell states, would suit us mightily well. The exercise and the food would be most excellent for sows before and after farrowing.

We may yet grow artichokes on the farm, somewhere, somehow. When some enterprising man invents an artichoke exterminator, and a quickly detachable attachment for a hog's snout, to prevent rooting, we can find no reasonable excuse for not growing artichokes on farms where hogs are kept.—Ed.]

For the Michigan Farmer.

SOME POINTS ABOUT THE ARTICHOKE.

For the benefit of John Chamberlin, and in compliance with your request, I will say that I have raised Jerusalem artichokes for stock feed for several years. I prepare the ground the same as for potatoes, plant as early as the soil can be worked well, in rows three feet apart, one piece to every sixteen or eighteen inches in the row. I use a smoothing harrow on the patch until the plants are six to eight inches high, then cultivate as for corn until two feet high. They will take care of themselves after that. They grow ten to twelve feet tall, branching similar to the sunflower plant; the blossoms resemble the wild sunflower but do not mature their seeds. They mature about October 1, when they may be gathered and stored the same as potatoes. I find that horses, cattle and hogs, will eat them in preference to beets or carrots. They yield very much better than potatoes with the same care and soil. I measured several small patches ten feet square, and found they showed an actual yield of seven hundred bushels to the acre. This was on muck soil, and the best part of the field. I don't know what the yield of the whole field was, probably 400 bushels to the acre. I usually leave my artichoke patch for the pigs to harvest in the spring. Sows with pigs do well on them with no other food. About May I fit the ground as for another crop, gather all the artichokes to be found, and turn the hogs on pasture. Plenty of plants will soon appear, and when six inches high, if I desire to raise another crop here, I cultivate the patch same as if they were planted in rows, cultivating up the plants between the rows. If I want to discontinue the patch of artichokes, horses, cows or hogs pastured on them will kill every plant the first summer. As to planting them in the orchard, I have had no personal experience farther than that I have seen them growing in orchards; the plants looked puny and sickly near the trees, and not first class even between the rows.

Mr. Editor, you say you would prefer to grow and feed potatoes to the swine rather

than grow and harbor a patch of artichokes on the farm. As this is at least the second time you have given the swine breeders of the MICHIGAN FARMER similar advice, I would like to hear from you more definitely on this subject. What has been your experience in growing, harboring, and feeding artichokes on your farm, and do your hogs take kindly to raw potatoes?

J. H. BANGHART.

For the Michigan Farmer.

ARTICHOKE.

I take pleasure in answering friend Chamberlin's queries in regard to artichokes, because I consider them a valuable crop to raise in connection with swine breeding.

Two years ago this spring I decided to try a small patch requiring one bushel of seed, next to the hog house. Last spring I planted the balance of the lot, less than an acre all told.

I planted them in rows three feet apart, 18 inches in the row, dragging and cultivating same as for corn. They are not injured by freezing, consequently I do not allow the swine to harvest them until spring, when they enjoy the exercise (as well as the tubers), judging from the way they work and thrive.

This patch has pastured 13 head of Poland-Chinas for six weeks, and we have fully two weeks' feed remaining, besides leaving enough artichokes in the ground for seeding again. About the first of May I shall turn on my regular swine pasture, drag over the artichoke patch, and it is ready for another crop.

I have not made any use of the tops, which are said to be equal to corn fodder for cows. I shall try them, cutting and feeding to the cows after the corn fodder has become frosted in the fall, as the artichoke tops are not affected by the first frosts. The advantages are a "sure crop," with a small amount of labor; a good feed before grass starts, or any time after the hard frosts stop their growth and up to planting time.

"Once planted always there," so visitors tell me, that have had experience. I would not advise planting in an orchard, unless the orchard was worthless now, as it no doubt would be so after growing artichokes for a few years. I know of no disadvantage, but think all there is, is to get rid of them, which I think will be far in the future, may be never at Prairie Castle. I am raising the "White Jerusalem," which is highly recommended. I shall save some for seed. Substantial farmers report a yield of 600 bushels to the acre.

ST. JOSEPH CO., MICH.

J. H. TAFT.

For the Michigan Farmer.

BROOM CORN CULTURE.

I wish to get some information regarding the culture of broom corn. I see you advise mixed farming. There has been a broom factory started this winter about fourteen miles from here, and they want the farmers to raise broom corn for them.

Now if you or some of the readers of the FARMER can give us some pointers on the culture of broom corn, you will confer a favor on quite a number of us in this vicinity.

What kind of corn would be best adapted to this latitude (Clare county)? How and when should we plant and care for the crop? What amount of seed per acre and where could it be procured?

I see one brother recommends it for tying corn, and perhaps he can give us a point on it.

CLARE CO., MICH.

S. H. GRAHAM.

[Who can write the required information, from experience?—Ed.]

NOT A WELL DAY**Did She See For Months—Can Now Sleep Well, Eat Well, and Pains Have Disappeared.**

"For several months my health had been failing, and I did not have a well day in this time. I had severe pains in my back, my limbs ached and I was restless at night. I suffered with loss of appetite and severe nervous headaches. A friend advised me to try Hood's Sarsaparilla. After taking this medicine for a while I found I was gaining in health rapidly. I now have a good appetite, can sleep well, and the pains with which I suffered have almost entirely disappeared. I am gaining in flesh. I am still taking Hood's Sarsaparilla and I recommend it wherever I go." MISS SARAH SMITH, 311 North Park Street, Chillicothe, Ohio.

Hood's Sarsaparilla
Is the best—in fact the One True Blood Purifier. All druggists. \$1, six for \$5. Get only Hood's.

Hood's Pills act harmoniously with Hood's Sarsaparilla.

WANTED—25,000 Bushels Ear Corn.
HENRY C. WARD, Pontiac, Mich.

Livestock.

ARTICHOKES FOR HOGS.

A number of parties have discussed the value of the artichoke as a food for hogs in our "Farm Department." The consensus of opinion among those who have actually tested them, is very favorable to the artichoke. It is asserted to have a high feeding value and to be more productive than most root crops, and to require far less care. It must be remembered that those who speak in the highest terms of the artichoke are breeders, not those who are growing hogs for the market, and that what is good for the breeding herd may not prove equally so for the market hog.

To the breeder this root is valuable because it is nourishing and at the same time cooling, and this makes it excellent for the brood sow, especially where a good deal of corn or other grain is fed. It is superior to other roots for the hog, because it is liked better and can be grown more cheaply. Once a patch is established it can be continued from year to year without further planting, if the ground is kept free of weeds and the hogs kept off it during the period of growth. The tubers are not affected by frosts if left in the ground, so the roots may be planted either in spring or fall. The hogs may be turned in in spring before pasture is available and, after pastures are well started, taken out and the artichokes in the ground, of which there are always sufficient, left to grow the next crop. There is no cost for harvesting the crop without they are intended for other stock than hogs, as the latter do the work themselves. Some assert that hogs will keep in good condition, and even get fat, on artichokes alone. It is best, we think, to feed hogs some grain in connection with the roots.

Another good point about the artichoke is that it does not require cooking. For the hog, all other roots should be cooked, and especially is this so with the potato. The tops, or stalks, of the artichoke are eaten by cattle and sheep as well as the roots. Late in September or about the first of October, after the blossoms have turned, the tops are cut by some farmers and stacked for fodder for sheep and cattle. To cut them earlier stops the growth of the roots, and some insist the crop can be got rid of when the land is wanted for other crops by simply cutting the tops before they blossom. This prevents the formation of new tubers, and the old ones having decayed, there can be no growth the following year. If this is true in all cases, one great objection to the artichoke is done away with. If the crop is intended to be harvested and fed out during the winter, it may be gathered and stored the same as the potato.

The best time to plant artichokes is as early in spring as the ground can be worked. They do best on a deep loamy soil, with plenty of moisture, although they do well on most all kinds of soil, and rough pieces of land are frequently utilized for growing this crop, because the deep roots, and the work of the hogs in harvesting them, are of much benefit in breaking up a stiff soil and rendering it fit for other crops. The ground is prepared as for other root crops, and the tubers planted in rows three feet apart and about eighteen inches between the pieces in the row. The soil may be harrowed until the plants are about six inches high, and then cultivated as for corn until about two feet in height. Nothing further need be done. The tubers will mature about October 1st. That fall and the succeeding spring the hogs can be turned in. In the spring they can be kept on them until early in May, when they should be taken off, and the ground cultivated and put in shape. The new plants will soon appear, but they will not be in rows. Some put in a cultivator and destroy plants wherever it is necessary to bring them into rows so as to cultivate as for the first crop. Others content themselves with working the ground so as to destroy weeds and get the surface level before the plants get any size, and then let them take care of themselves.

In discussing the relative merits of other roots and artichokes, such as potatoes, it should be borne in mind that potatoes are never grown for stock feeding purposes. The small ones are utilized, and the selected tubers probably sell for as much money as if those thrown out had been sold with them. To utilize these small potatoes in hog feeding is to save what would otherwise be valueless. Where large crops of potatoes are grown, it is therefore doubtful if it would pay to plant artichokes, or only a small patch to turn the hogs in before pastures are available in the spring.

REMEDY FOR HOG CHOLERA.

To the Editor of the Michigan Farmer.

Will you secure that remedy for hog cholera of L. H. Graham, of Clara Co., and publish the same in the FARMER, and oblige all your readers. P. WILBUR.
LENAWEE CO., MICH.

The remedy referred to by Mr. Graham as proving so effectual against this disease, was published in the FARMER last summer, and is as follows:

One part wood charcoal, one part sulphur, two parts sodium chloride (common salt), two parts sodium bicarbonate, two parts

sodium hyposulphite, one part sodium sulphate, one part antimony sulphide. These ingredients should be well pulverized and then thoroughly mixed. The dose is one tablespoonful for each two hundred pounds weight of hog, once a day. Those weighing less should receive smaller doses in the same ratio per weight. It is best administered by mixing with bran, middlings, or other soft food. After having been induced to eat it once the hogs will usually return to it with a relish. This is not a certain remedy in all cases, but it has effected many cures, and is the best preventative of the disease yet discovered.

In an outbreak of the disease all sleeping quarters, breeding places, feed lots, and other places where the hogs congregate should be thoroughly disinfected every few days. This is best done by sprinkling well with air-slaked lime, or a 5 per cent solution of crude carbolic acid, or some other good germicide. No stagnant water should be permitted in the pasture or feed lot, and the disinfectant should be used liberally about the watering place. All litter should be removed and burned, changing it frequently. Give wholesome food and clean water. Put 8 to 10 drops of carbolic acid per animal in the water each day, and give fresh water each day.

For the Michigan Farmer.

THE GRATTAN SHEEP-SHEARING ASSOCIATION.

The above Association held its annual festival April 10. The members were very kindly entertained by Mr. John Randall, whose pleasure in the festival was somewhat marred by the apparent loss of his favorite span of horses that were stricken with paralysis a few days previous, and lay in a hopeless condition.

Much credit is due to the ladies who show their interest in their husbands' pursuits by their cheerful assistance in preparing a sumptuous dinner annually in the Grange Hall for this occasion.

Many pioneer guests were present. Mr. J. G. Cowan made a few remarks, stating that the increased number on exhibition, and the marked improvement in the grade, were features by which to judge the future success of the Association.

The election of officers resulted in Mr. J. G. Cowan being re-elected president, Mr. Wm. Lessiter treasurer, Mr. Wm. J. McCarthy succeeded Mr. Nash as secretary, Mr. Geo. Ashley and Martip Mann vice-presidents. On account of the cold weather only a few sheep were shorn. A description of these is given below:

Owner's Name.	Breeder's Name.	Breed.	Sex.	Age.	Weight of carcass Lbs.	Weight of fleece.	No. of Register.
H. J. Watkins	H. J. Watkins	Lincoln	Ewe	2	135 1/2	10 1/2	...
H. J. Watkins	H. J. Watkins	"	Ewe	2	134 1/2	10 1/2	...
Sech Partridge	J. T. England	Merino	Ewe	2	20 1/2	18 1/2	99
C. M. Mann	C. M. Mann	"	Ewe	1	56	16 1/2	103
C. M. Mann	Wm. Hartwell	"	Ewe	1	117	25 1/2	180
J. G. Cowan	J. G. Cowan	Shrop.	Ewe	2	187	9	...
J. N. Bricker	J. N. Bricker	Lincoln	Ewe	2	128 1/2	9 1/2	...
W. M. Lessiter	J. G. Cowan	Lincoln	Ewe	2	128 1/2	9 1/2	...
Geo. Ashley	Geo. Ashley	Merino	Ewe	2	113	24 1/2	118
Geo. Ashley	Geo. Ashley	Merino	Ewe	2	113	24 1/2	118

W. M. J. MCCARTHY, Secretary.

THE BROOD SOW.

In the Berkshire Year Book, a most valuable publication this year, appear a number of articles from experienced breeders on the brood sow—how to feed, breed, and manage. One of these, from a New York breeder, Mr. C. F. Boshart, is given below:

With the brood sow one's success in breeding hangs in the balance. Bright prospects are often blighted, and one's high ambition often reverts to disappointment. Experiments many times prove costly, and experience one's great benefactor. To have a good brood sow we must begin with the small pig and feed for the purpose of producing a strong, thrifty and healthy animal. The young sow should be fed to promote a good growth of bone and muscle. She should be kept growing all the time up to farrowing, and after farrowing until she reaches maturity. While I endeavor to keep her in good flesh, I avoid feeding too much fat-producing material. We must have a good framework and a hardened muscle, then half the battle is over. The nitrogenous foods develop bone and muscular tissues, while exercise gives strength to the framework and solidity to the muscles. From plenty of exercise we obtain good limbs, good feet and good action.

Young sows fed principally on a diet of carbonaceous foods are liable to stop growing and at farrowing time they have a heated and feverish system. During summer our breeding stock are allowed the free run of our orchards. Sows carrying litters roam at will over five or six acres. Each lot is provided with pens in which they are fed, and serves them as shelter in stormy weather. From our deep snows and severe winter weather they cannot

have an open run for part of the year. Our largest hogs are kept in pens with a ground bottom, with plenty of litter, and are taken out and allowed the use of portions of the barn for exercise. Young stock which are to farrow their first litters are allowed daily exercise, their appetites are sharp and they do not become sluggish. Before farrowing time, the breeding stock is fed morning and evening a ration of ground corn or peas, wheat bran and ground oats mixed one-third of each by weight. The grain is mixed in a soft mash with lukewarm water or water and skim milk when we have it. At noon all are fed a generous ration of mangel wurzels, cut with a root cutter.

About a week before farrowing time the sow is put in a separate pen, and fed a thinnest slop of wheat middlings with ground oats, to which is added a little flaxseed tea.

When the sow is about to farrow, fresh chaff or cut straw is put in the pen to form her bed. We then leave the sow alone, except watch and see that each new arrival does not stray to some part of the pen and become chilled.

For the first day only a drink of pure water is provided. The second day she is given a thin slop of wheat middlings and fed sparingly until the pigs are able to take all the milk she will give. The feed is increased gradually as the pigs grow older, until the sow is fed all she will eat up clean. As soon as the pigs show an inclination to eat from the trough, a small shallow trough is provided and placed where they can have free access to it, but out of the way of the brood sow. They are then fed skim milk, in which is stirred a mixture of wheat middlings, sifted oats with some coarse flour. In from six to eight weeks the pigs are weaned and we obtain satisfactory results.

Good results cannot be obtained from a half-starved sow; the pigs do not thrive and we cannot obtain sufficient size at eight or ten weeks old. The brood sow must be kept in "good heart," healthy and strong, then proper feeding quickly responds and promotes the growth of a healthy and vigorous pig. A voracious sow at farrowing time is unknown to me: no animal in the herd needs watching for fear she will devour her young. A voracious brood sow has been made so from improper feeding, which has caused a diseased and feverish condition of the system.

Keep the sow in a good thrifty and healthy condition, allow her plenty of exercise, feed her green food occasionally in winter, and avoid brood sows with heavy, larded muscles, and few will have cause to complain.

For the Michigan Farmer.

OBSERVATIONS ON RAPE-POTATOES FOR SHEEP.

The article by H. J. DeGarmo on rape pasture, which was published in the FARMER of March 27, was interesting not only as a guide to those wishing to raise the plant, but as showing some departures from the advice usually given for the culture of this plant. In the *Rural New Yorker* of same date as the FARMER, a correspondent is recommended to sow the seed July 1, when it should be ready for pasture by September 15. Mr. DeGarmo sows by May 10 and finds it ready for the sheep by June 25, an important difference when pasture is short. The *Rural* concludes its advice with these words: "If corn grows well in your section, you cannot improve upon that as a fodder crop." The experience of the FARMER's correspondent would indicate something quite different. If the variety sown was the Dwarf Essex, as it probably was, that being the kind mostly grown in this climate, it will be interesting to know the results of the coming year from that rape field, as the plant is a biennial. Evidently the rape plant is not so well known as it should be.

In a season like the past the sheep have an opportunity to get a share of the surplus potatoes. They eat potatoes eagerly enough, and do not tire of them when fed at the rate of a bushel daily to a hundred sheep. For breeding ewes they have proved valuable, although among some sheep men there is a prejudice against them on the supposition that the feeding of potatoes is injurious to the unborn lambs. We have not found it so. Ewes that were fed on potatoes could not have gone through the season in better condition, and the percentage of loss among lambs was exceedingly small. But there are comparatively few years when potatoes can be fed with profit. F. D. W.

TEXAS FEVER.

Elaborate experiments on Texas fever have been conducted at Columbia during the past year by the Missouri authorities, co-operating with the Texas Experiment Station. A bulletin just issued reports the results of these tests.

It was clearly demonstrated that the Texas tick is the natural means of communicating the disease from one animal to another. Ticks hatched in the laboratory when put on Missouri Shorthorn cows in lots free from any possible infection, produced fatal cases of Texas fever in every instance within from thirteen to eighteen days after the young ticks were placed on the animal.

The Texas Station dipped a carload of Texan cattle, all of which were covered

with the Texas fever tick, and shipped the dipped cattle to the Missouri Experiment Station. These cattle were dipped in a mineral oil at a cost of less than five cents per head. The Missouri Station confined these dipped Texan cattle in a small lot with a number of Shorthorn cows, from the 13th of August until the first of November, and made careful daily observations and temperature records, with the result that no Texas fever was communicated. If subsequent experiments confirm these results, the dipping process will be entirely practicable and feasible, and can be easily and cheaply done on a commercial scale, and would enable the farmers of the Mississippi Valley to purchase and bring to their farms with perfect safety at any season of the year cheap range cattle to eat their surplus corn and grass.

An attempt was made to inoculate cattle so that they would be proof against this disease, with very promising results. These results are also in a measure confirmed by experiments that Dr. Connaway has just concluded in Mississippi, on a carload of dairy cattle shipped there from Kansas. Twelve of these cattle had died of Texas fever before the animals were injected; none died afterward. The method is neither expensive nor difficult, and if it proves to be successful as it now promises, the entire Texas fever district comprising a dozen States will be opened as a market for the thoroughbred stock of the north and west, inasmuch as these animals may then be shipped to these States with entire safety from loss. Extensive studies and observations on the habits and movements of the tick were made which led to a number of important practical conclusions in regard to the best methods of disinfecting pastures, etc.

STOCK NOTES.

HENRY WARD, the proprietor of the big sheep ranch, has accumulated 200,000 lbs. of wool from the sheep and lambs he has purchased. It should bring him at least \$25,000. He has been offered \$30,000, and refused it.

HERE is how a western cattleman cured a number of cases of lumpy jaw: "I gave them two drams of iodide of potassium dissolved in a half pint of warm water, drenching cattle in the nose, not the mouth, for seven days in succession; then I skipped a week, and repeated the operation for the succeeding seven days, then skipped another week and gave one more drenching, making fifteen in all. This treatment, which is that recommended by the government, is sufficient for the cure of ordinary cases, but where the animal is very badly affected, the whole operation should be repeated."

A REPORT from Washington states that the Agricultural Department has taken steps looking to the extermination of hog cholera, and, as an initiative, has sought the co-operation of the States of Tennessee and Iowa in an experiment to determine how economically the malady which is devastating swine interests can be stamped out. If they comply, the department very soon will send representatives of the Bureau of Animal Industry to one or two counties which the governors have been asked to designate as particularly subject to an outbreak, and the result of the investigation and treatment will be reported immediately there. From the tenor of the report it would appear that the Agricultural Department holds the opinion that hog cholera, if once stamped out, will cease to trouble breeders and feeders. There is nothing more certain, however, than that the disease will return whenever conditions are such as to invite it. Continual vigilance must be exercised by every hog owner if the disease is to be kept out of a locality. Stamping it out is all right, so far as it goes, but that will not end the matter. Prevention must follow the stamping out, and that is the duty of the hog owner.

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The Horse.

COACH AND CARRIAGE HORSES.

Alexander Galbraith, of Wisconsin, once a large importer of Clydesdale horses, writing to a horse journal on coach and carriage horses in reply to some strictures on his published opinions, says:

"In last week's issue you take me to task, rather unfairly, I think, for the statement which I made in the *Chicago Horseman* to the effect that our farmers and horse breeders generally have in the past shown their lack of ability to produce carriage horses. My statement was general, not specific, and it referred, as could easily be seen, to the rank and file of our breeders. The gentlemen you mention—Messrs. Fairfax, Cassatt, Dunham, etc.—are not the rank and file. They are leaders in the business, and if the country was full of such men it would also in all probability be full of fine carriage horses, whereas we all know that the very reverse is the case. I have always looked up to the gentlemen you name, or most of them, as men of 'light and leading' in the carriage horse business, and would be content to follow in their footsteps, but when you quote them as representing the average, rather than the highest type of breeders, you certainly do both yourself and them a gross injustice.

"However, I am pleased to know that the substance of my article met with your approbation, and especially that portion wherein I tried to describe the style and action of the up-to-date carriage horse. It is a notorious fact that such horses never were, nor seemed to be, so scarce as they are at the present time, and the only reason one can assign is that breeders—I mean breeders in general, of course—have employed their energies in a wrong direction in the past, and must change their tactics and their material if they expect to accomplish anything in this line in the future. How frequently we meet breeders who assure us that they possess the very highest type of carriage horses, and invite our inspection of what are almost invariably third or fourth-rate animals. I meet such men every week, and this is why it occurred to me to mention the matter. The average horse-breeder either does not know or has not the candor to admit, that what he has on hand are not worthy of the name of carriage horses at all, as they possess for the most part hardly any of the indispensable, viz., quality, style and action. A very few have sufficient quality and size, and a smaller number the requisite style, but not one in a hundred is possessed of that easy, graceful, flexible, lofty, all-around action which betokens the true carriage horse."

What Mr. Galbraith says unfortunately contains a great deal of truth, and one of the chief factors in bringing about this condition were the journals devoted to the trotting interests. For years they talked about nothing but speed, more speed, and urged farmers and breeders to use stallions of some particular family of the trotter. The consequence was that every scrub colt with a strain of Wilkes, Nutwood, or some family, was kept for stud purposes when they were not fit for street car purposes. We have seen Wilkes stallions under 15 hands, with ewe necks, long backs, sloped rumps, and hind legs shaped like a sickle, securing all the mares their owners thought desirable each season, because several of their get had broken into the standard list. It was blood, not size, style or quality that was wanted, and when they got this "blood" it was all they ever got. Of course the quality of horses bred in such a manner was becoming worse from year to year. The tide has turned in the opposite direction, and speed has become so cheap that it is practically worthless if not associated with other good qualities. Opinions have changed radically, and even the "hoss trot" journals are beginning to show signs of returning sanity. There are plenty of the right class of horses in the country now from which to breed a high class of carriage and coach horses, if intelligently used; but we look for another craze in the shape of "imported" stock, which will take thousands of dollars abroad to purchase animals not as good as can be found at home. We hope farmers and breeders will keep clear of the craze, and let speculators pay the cost of their own schemes.

FITTING COLLARS.

Some harness-makers have a habit of only taking the measures for collars, from the withers to the bottom. This is not sufficient, considering the different breeds of horses which have to be measured every day, and often the difference between the anatomy of a mare and a horse is ignored. The former has rather contracted neck and shoulders, while the latter—especially stallions—have them very thick. Hence it is necessary to take, besides the length from withers to throat, the width across the draft, and the width at about five or six inches from the withers, in order to indicate the kind and the breed of the animals to be harnessed. The best way to take the measure of a collar is to do it by the aid of and comparison with another, noting the necessary differences. Every care should be exercised to get exact measurements, so that the collar need not be interfered with when once made. A properly fitted collar is an absolute neces-

sity for the comfort of the horse, as well as for the prevention of shoulder galls. The collar should also be kept perfectly clean on the inside where it comes in contact with the skin. Perspiration and the accumulation of dust and dirt will soon make the surface rough if it is not cleaned off, and sore shoulders are sure to result. The early spring work is frequently interfered with from this cause, as the animal is generally soft, and more susceptible to injury than later in the season. As a prevention wash the shoulders each evening with cold water in which a little salt has been dissolved. It will take out the soreness and fever, and harden the skin so it will not become broken so easily.

CARE OF HORSES' FEET.

Here is what an English specialist says concerning the care of horses' legs and feet. A little bit of the advice tendered may be applicable in this country, but most of it will be out of place, as the conditions here are so different: I try to imitate nature by the following system: I have earth floors in all the stalls; I wash the legs from knees and hocks downward every day; walks in the dew and rain-soaked grass are given. Should the horse come in from exercise with feet full of earth, it is not picked out, but left in for two or three hours, cooling and sweetening the feet wonderfully. It is not advisable to leave the earth on the feet longer than this, as it becomes hardened from the heat of the foot, and thus balks the object aimed at—coolness. I apply cold-water bandages, changed every two hours, for reducing the heat in fevered legs and I do not grease the hoofs, nor allow the smith, when shoeing, to remove any part of the hoof except the wall, which he lowers, so that when the shoe is put on, the frog has an even bearing with the shoe. With the above system, I have never had any difficulty in keeping my horses' limbs right; in fact, they could hardly be improved upon, and deserve the eulogy pronounced by the famous trainer, John Scott, on Lord Zetland's great horse Voltigeur, viz.: "Is legs and feet, my Lord, are like hiron."

HORSE GOSSIP.

No more betting or pool-selling in Wisconsin. This will knock out Ideal Park, where Chicago sports go to do their betting.

It is expected that the Illinois legislature will pass a liberal racing bill authorizing racing associations to hold thirty days' meetings annually, with local book privileges.

MONROE SALISBURY says that Azote, the son of the half-bred horse Whips, is the greatest trotter that ever lived, and he has had an opportunity to test Alix, Directum and Little Albert. He says if Azote was a stallion he would own him if it cost a hundred thousand dollars to do so.

At a meeting of horsemen in Iowa the past winter, a veterinarian, speaking on transmissible unsoundness, said: "No horse should receive a premium that possesses hereditary defects, and no person is a qualified judge who is unable to detect the same." It strikes us that the number of qualified judges under this ruling is a very small one.

JOHN SPLAN has a picturesque way of expressing himself. In reply to a query, he said recently: "Do I think the horse is going out? Why the horse is just coming in. The bicycle will drive out the horse when the cash register drives out the piano. The bicycle is just teaching people what outdoor life means—which we Americans haven't half learned yet. There's plenty of room for all the machinery you can invent and the horse, too."

The get of Morello, undoubtedly one of the greatest race horses of his time, who unfortunately died just after he had been placed in the stud, are showing up in good form. Recreation is said to be one of the best two-year-olds out this season. She is a filly out of Picnic, and won the Ulman Stakes in good style recently. Morello, a two-year-old colt, beat a fast field recently at San Francisco, and showed not only speed but great gameness. He gave weight to each of the others in the race.

It is stated that the German army has recently been testing horseshoes made of paper. It has been found that their lightness and elasticity make it possible for a horse so shod to travel faster and farther without fatigue, than one shod with iron, and they are entirely impervious to water or other liquids. The shoes are made by very much the same process as the paper car wheels, and consist of thin sheets of paper pressed into a solid mass by hydraulic machinery. They can be fastened to the hoof of the horse either by nails or by a kind of glue made of coal tar and rubber.

J. MALCOLM FORBES has entered as a contestant in the Harriman-Daly sweepstake races for trotting 2 and 3-year-olds, for \$2,500 a corner. The entries for the events do not close till the 15th, but Mr. Forbes, believing the interests of breeding to be greatly served by a general participation in such events, has anticipated the closing date by going into the 2-year-old class. These races, which promise to be among the notable turf events of this year, were started during the winter by an agreement between E. H. Harriman, of New York, and Marcus Daly, of Montana, to race their best 2-year-olds and best 3-year-olds in match races for \$2,500 a side. The conditions agreed upon were to close entries April 15, to name June 1 and to race some time in August. Mr.

Harriman had the choice of track, and chose the half-mile course at Goshen, Orange County, N. Y.

A MISSOURI farmer, in a letter to the *Rural World*, takes the ground that "the osage hedge is a nuisance." Here are his reasons for that opinion: "No tree or plant absorbs more moisture or utilizes more fertility than the osage hedge bush. This worse than useless bush seems to me to be the only thing extant that is absolutely unfit for anything. But the chief objection I have to it, is, that it renders the ground on both sides for fifteen or twenty feet out utterly useless. Nothing will grow to do any good nearer than ten feet to it. The ground on either side is closely woven with its long, strong yellow roots. Besides the uselessness of a hedge fence is the great amount of labor involved in keeping it in trim. I have heard men say they would rather make rails in August, than trim a hedge fence." All of which we said in the *FARMER* a dozen or fifteen years ago, and saved many farmers in this State from setting out this abomination. As it was, too many were put out, and are yet either defacing the earth or have been cut down as a nuisance.

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The Poultry Yard.

For the Michigan Farmer.

THE TURKEY VS THE DOMESTIC HEN.

Of all the different kinds of poultry that can be raised on the ordinary farm, we doubt if any are of greater practicability than the turkey. Compare the turkey and any other fowl. Take into consideration the cost of feeding and housing the old stock, and add to this the difference in expense of rearing the youngsters; the turkey is easily ahead.

Almost any breed of the domestic fowl must be provided with some sort of shelter during the winter months; this is especially true here in our northern climate. It is different with the turkey; for while the domestic fowl must have a well-equipped house for its comfort, the former is well satisfied with a roost outside, providing it can get a reasonably good windbreak from the winter storms. Not only can it pass the winter with such accommodations, but, regarding its healthfulness, it is far better than it should. The turkey, especially the hardy Bronze, was never designed to become an inmate of a poultry house. We have tried housing the turkey and have met with anything but success.

We sometimes hear remarks something like this: "Oh, I don't like turkeys; they eat so much!" Persons who commit themselves as above show a decided want of knowledge of the real facts of the case. They are something like the men who are anti-sloists—a little better than ninety per cent never had any practical experience with a silo whatever, and yet they consider themselves fully competent to pass upon its merits. It is sometimes surprising to the writer to see how comparatively little is required to sustain life in the mammoth body of the Bronze turkey. It is the writer's honest opinion that a thirty-five-pound Bronze turkey will eat no more than a twelve-pound Light Brahma cock during the four winter months. Past experience with the two breeds has amply demonstrated to our entire satisfaction that this assertion is not very far from correct. For example, last winter we wintered a flock of something like six hens and one tom. Their feed was shelled corn entirely, warmed during excessively cold weather. They were fed in troughs, so that little or none was wasted. Our mode of feeding during the entire winter was to give what we could naturally and easily pick up in one hand by plunging fingers foremost down into the corn; one handful was allowed each turkey twice a day, morning and night. If anyone with a medium-sized hand will try the experiment they will readily see that it is not a heavy feed. This was not a stinted feed, but simply all they required; had we doubled the amount they would have left, on the average, something like half.

The writer has had experience in raising both chicks and poults, and if we were to express our preference we would have to give it to the latter. While the writer is perfectly willing to admit that the chick is by far the easier to handle during the first three or four weeks, matters change very greatly after the poults take to the range, and practically all care is over until Thanksgiving. This is our experience and the way we raise turkeys.

A person ought to be able to raise from eight to a dozen head of young stock for every hen turkey he owns—providing, of course, he doesn't keep more than he can successfully handle. A person can safely figure on one dollar per head for early hatched Bronze turkeys at Thanksgiving. The writer had a few June hatched poults this year that brought ten shillings each. So we don't consider that we have set the price too high for average May hatched turkeys. If we can raise turkeys at this rate—and it can be, and is, done—it means that each turkey hen is going to bring you in from eight to twelve dollars. Ninety-five per cent of this is pure gain, as they pick up mostly what would otherwise spoil. Now then, taking into consideration time and money, out-houses, etc., year in and year out, which is ahead, the turkey or the domestic hen?

We have had quite a considerable experience with both kinds of fowl, and we don't think the case is overdrawn when we say that we can count on the fingers of one hand all the hens that ever paid us three dollars per head. When we become satisfied that we can't make each turkey hen pay us at least double that, we'll sell out.

C. P. REYNOLDS.

POULTRY NOTES.

The Red Caps do not seem to hold their own against the Mediterraneans. They are good layers of a rather small and ill-shaped egg, but are no better than the Leghorns. For the table they are inferior. They are losing ground because they do not excel in any desirable quality, and are lacking in many ways. So far as plumage is concerned they are attractive.

The claim is made by some poultrymen that young pullets' eggs are usually infertile. Our experience has led us to the opposite conclusion. We have not found the trouble in the lack of fertility, but in the weakness of the young chick. Such eggs in an incubator are little better than none at all. The hen may manage to save

some of them, but we do not care to take the chances of raising by hand.

There have been so many cures for hen lice recommended that we have become tired of them, but the Farm-Poultry has one so easy of application that we give it. Into one gallon of kerosene put a pound of naphthalene. When the solid is dissolved by the oil the preparation is ready for use. Take a box large enough to hold a hen and paint the inside with the mixture. A barrel will do very well, and should be painted as high as the fowl's head. Place the bird in this and cover with a basket or coarse sack which has also been treated. In half an hour the lice will be dead and the hen none the worse for the treatment. Repeat the operation after the insect eggs have had time to hatch. It is too strong for using on young chicks, and we are warned against using it on sitting hens. The liquid should be kept tightly corked and away from fire as it is inflammable. The preparation may be used occasionally on dropping boards and perches. At least it is inexpensive and easy of application.

Our grandmothers believed that there was a difference in eggs, when it came to setting them, but by many people now this idea is held absurd. An egg is an egg, they claim, be it smooth or rough. But experience makes it more and more evident that the old idea is the correct one. An egg is a delicate organism. An irregularity in the shell will cause an irregular development in the chick which means weakness of some kind. It does not require much of a departure from the normal to produce monstrosities, as those who have used incubators have found out. To get a good hatch of healthy chickens, smooth, medium-sized eggs should be selected. And after the hen has been set she should be left to look after her own affairs as much as circumstances will allow.

Many people are deterred from raising turkeys through a fear of troubling their neighbors. This is frequently a serious trouble, but is a difficulty that may be guarded against to some extent. If the poultry is kept within bounds at first they will come home at night to be fed when grown, and cannot wander far during one day. If they are allowed to go as they please they will stay wherever darkness overtakes them, and that is as apt to be on a neighbor's fence as anywhere. With a little attention they can be kept out of the wheat and oat field till after harvest, and when they do get the freedom of a grain or hay stubble they will be kept busy for a time. As for the corn, we have not found them troublesome in that. They delight in the shade afforded during August, but this attraction does not offset the insect supply of the stubble fields. After the corn is in shock there is an opportunity to do considerable damage, but we have not found that they do. They will walk over a pile of corn and stop to eat only a little of it, but have a disagreeable way of rolling the ears in the dirt. They do not care enough for new corn to induce them to waste much time at picking the kernels from the cob. They prefer to be looking after black beetles and crickets, or some other work less laborious and more remunerative. But this is not always the case. Some flocks seem possessed with a demon of destruction in as bad a form as their human namesakes. It is important to get fowls or eggs from flocks that are easily managed, when one begins at turkey raising, and then bring up the young in the way in which they should go. They will return the favor when they come to the market.

The old style of roost still prevails in hen houses, that of arranging the poles one above another like a ladder, though there is little to recommend it. Poultrymen warn us against it, though their reasons do not always seem exactly forcible. The hens do not all climb to the top pole and fight for a place, but those that come home early get up as high as they can, while the later arrivals stay below. We are told that the hens fly directly down from these high poles, instead of hopping from roost to roost, and so are frequently injured if of the heavy breeds. That may be in the case of an Asiatic or an American fowl, though we are inclined to the opinion that the danger is exaggerated, but whoever watched a Leghorn or a garden-scratching mongrel glide over a fence and still harbored fears of this kind? If there were any danger from this source they would need the lives of twenty cats to carry them through a single summer. The delicate pets of the fancier may not be able to stand this, but we will risk the ordinary farm birds and their descendants, though crossed with thoroughbreds to the fourth generation.

But there is another reason why we prefer a different arrangement for the roosts. In the summer the hen will stay out of doors if she can. She prefers a tree or a fence because it is cooler. When cold weather comes she stays where she is accustomed, either because she has become attached to the place or does not know any better, but if she is moved to a building she will get up under the floor or where she can have something over her back. These are the warm places in the house and that seems to be what the hen is looking for. When the perches are on the same level a shelf can be placed over them which will add greatly to the comfort of the flock during the cold nights. Of course it must be so arranged that the hens cannot get on the shelf or they will stay there at first instead of on the perches, but after staying in the proper place for a few nights there will be little trouble. A hen's habits are easily directed when being formed, but are hard to break when once established. There is everything in taking her in time.

F. D. W.



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Farmers' Clubs.

CONDUCTED BY A. C. BIRD.

All correspondence for this department should be addressed to A. C. Bird, Highland, Mich.

OFFICERS OF THE STATE ASSOCIATION OF FARMERS' CLUBS.

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All communications relating to the organization of new Clubs should be addressed to F. D. Wells, Rochester, Mich.

Association Question for May.

How can we best improve the roads under the present system?

Association Topic for June.

Chief elements of success in our best local club meetings.

THE ASSOCIATION QUESTION FOR MAY.

The announcement of the Association question for May has been purposely delayed until this time. The committee have delayed their announcement because of their feeling that circumstances might arise whereby some of the several measures especially advocated by the farmers' clubs before the legislature might require additional support from the local clubs at their May meeting. It is especially gratifying to be able to announce that such circumstances as yet have not arisen, and the committee are unanimous in their selection of the May question as above stated.

We need not apologize for again suggesting the topic of "Good Roads." Six months ago, when the question was first discussed, it was with the distinct end in view of heading off what we, as farmers, believed to be a movement which would impose on us serious and grievous additional burdens of taxation. In this we have been successful. The so-called "Good Roads Movement," instituted by the Good Roads League, is for the present an abandoned enterprise. The principle promulgated by the State Association of Farmers' Clubs, "That no change be made in our road laws whereby the maintenance of our roads shall be more burdensome than at present, or that will dispossess the farming community of their management," has met with the approval of the present legislature, if, as we believe, the present indications are to be trusted.

The farmers have won the victory, led by the Farmers' Club as an organization. But while we may well congratulate ourselves on our escape from a threatened evil, and more truly still upon this practical demonstration of the strength of our organization, the fact must not escape our immediate consideration that the victory has brought with it a great responsibility.

Our main argument all through this discussion with the Good Roads League has been "The present laws are satisfactory if properly enforced." We have pinned our faith, and pledged our support to the present system, and the legislature proposes to take us at our word. This means simply and plainly that something must be done to secure a better enforcement of the present laws during the next two years, or we shall meet and deserve defeat at the next session of the legislature. The Farmers' Clubs have taken the initiative in the fight, and, through the combined efforts of the farmers of the state, we have won the battle. Now it is again our plain duty to lead in the solution of the greater and graver problem which is the natural inheritance of our victory.

With this in mind may every farmers' club at its May meeting discuss the regular Association question with the practical end in view of improving the roads of the State. The well-remembered condition of the roads nearly all over the State during the months of March and April of this year ought to be sufficiently in evidence even in May to insure a lively and general interest in the question.

In connection with the discussion, we would suggest and urge that the intensely practical article on "Good Roads" by Robert Gibbons, published in the MICHIGAN FARMER, November 7th, 1896, on page 314, be read before every club.

Again we say, the problem must be solved and the responsibility rests with us. We must prove our faith by our works, or justly suffer the consequences.

THE COUNTY SALARIES BILL.

We have good news for club workers and, indeed, for every citizen of this great State. The County Salaries Bill has passed the House by the decisive vote of 78 to 13. The material features set forth in the bill as published in this department several weeks ago, have not been changed except in three particulars; and all of those changes were made by the friends of the measure and without practical opposition.

The first and second changes were made by Representative Kimmis upon the advice of the legislative committee of the State Association while the bill was in the hands of the committee.

The first of these, in effect, made the measure apply only to the offices of judge of probate, sheriff, county clerk, prosecuting attorney, register of deeds, treasurer and school commissioner. It was found impracticable and entirely unnecessary to place the minor offices, such as coroner, surveyor, etc., whose duties are continually varying with unforeseen circumstances, upon a salaried basis.

The second change fixes a minimum salary for each officer, below which the supervisors can not go in carrying out the provisions of the act. This list of minimums is published elsewhere in this issue. Such a provision was thought to be a necessary safeguard in cases, which frequently occur, where the Board of Supervisors is controlled by a political party differing from the one to whom the county offices are certain to go at the next election.

The third change, made while the measure was under consideration on the floor of the House, is one which some of the friends of the measure will regret. It exempts the office of sheriff from the provisions of this act. The more conservative element, however, believe that although the evils of the fee system are probably greater in this office than in almost any other, yet the test of the practical application of the new measure had best be made with that office left out. Serious business difficulties surround the placing of this office on a salaried basis, and although we believe the problem can ultimately be solved, yet we are distinctly of the opinion that the practical workings of the proposed new law in connection with the other county offices, may well be studied for two years before the office of sheriff is included in the list. It seems certain that additional legislation, more clearly defining the duties of the sheriff, will be necessary before any such radical change is made in the present method of remunerating this officer.

Taken all in all, the passage of the bill by the House is a great victory for the people. Tremendous opposition was developed against it, and few men believed the popular movement in its support could overcome the mighty and well-organized power of the county office-holders. It simply proves our words of six months ago, that the legislature will always heed the will of a united people. The farmers' clubs and Granges have not created the power which passed the bill. They simply united and concentrated that which has existed in this State for many years.

THE SENATE AND THE COUNTY SALARIES BILL.

We are besieged with letters asking if, in our opinion, the Senate will pass the County Salaries Bill. We have not hesitated to reply to all these inquiries that we have every reason to believe that the Senate will pass the measure with even a stronger vote than the magnificent one given it in the House.

These reasons are as follows: 1st. The measure has from the first been urged strictly upon its business-like merits.

2d. The Senate is especially strong in its business make-up. Its treatment of all measures which pertain to business interests has demonstrated the fact that business men and business methods there prevail.

3d. The support of the measure by the people has been as spontaneous and free as it has been general. Of the hundreds of petitions in its favor, not one has contained a stereotyped expression. No printed forms have been used in a single instance. Independently, and without any machinery, the movement has grown out of a popular demand that a grievous wrong shall be no longer endured, until to-day it stands deservedly the most

popular of any measure before the legislature with ninety-nine per cent of the people of the State.

MINIMUM SALARIES UNDER COUNTY SALARIES BILL.

Population.	Judge probate, salary.	Sheriff, salary.	County clerk, salary.	Prosecuting attorney, salary.	Register, salary.	Treasurer, salary.	School commissioner, salary.
5,000-10,000	\$400	\$400	\$400	\$400	\$400	\$400	\$400
10,000-20,000	700	700	600	700	600	600	600
20,000-30,000	900	900	800	900	800	800	800
30,000-40,000	1100	1100	1000	1100	1000	1000	1000
40,000-60,000	1300	1300	1200	1300	1200	1200	1200
Above 60,000	1500	1500	1400	1500	1400	1400	1400

THE FUTURE OF THE FARMERS' CLUB MOVEMENT.

[A paper read by A. C. Bird at the annual meeting of the State Association, and published by vote of the Association.]

(Concluded from last week.)

And the most discouraging feature of all is the fact, that while this reluctance comes many times from a desire to cover up questionable appropriations of public funds, yet that really honest and intelligent men who are thus placed in authority, not of county offices alone, but of our educational and other institutions as well, defend their action in this matter on the grounds that the popular intelligence is not sufficient to comprehend the true needs of the institutions they govern; that the people in general do not appreciate the fact that different grades of work command vastly different remuneration. This idea is urged by men of irreproachable character, apparently unmindful of the fact that in so doing they are striking a deadly blow at self government itself. These men are mistaken, and I make the assertion without apology. The entire history of this republic has proven that the people can be trusted, and object lesson after object lesson can be cited in substantiation of the statement. The great danger to our institutions lies not in trusting the people, but in deceiving them. No real progress is possible which is not based upon the intelligent support of public opinion, and all efforts toward permanently building up our institutions on any other foundation will surely end in disaster. And let it be the work of this Association, and of the farmers' club movement throughout the State and nation, to teach these leaders in public thought and action that the people will no longer trust those who will not reciprocate their trust; that the men who will not trust the people, can not be safely trusted by the people. Let it be the cardinal principle of this organization, in all its future work, that the people can and shall be trusted. On that foundation we may safely build. And let us cease not in our efforts until it shall be as easy to determine the official income of every public officer and employee, and to secure an itemized account of the disposition of all public funds, as it is for a stockholder to determine the same in the corporation of which he is a member.

Shall it be asked why educational leaders make this mistake? Why those who might reasonably be expected to draw right conclusions and make fewest mistakes should err on this vital point? Our reply is this: That this weakness in their judgment which leads them thus astray is indigenous to their college training. Great though be the work of our educational institutions, and ours the last hands to strike down or cripple them, so far as their practical work is concerned, we must admit, as must all observers, that the natural tendency of college bred men seems to be to underrate the ability of those not similarly trained. Educated, as he generally is, more or less at the State's expense, the average college graduate goes forth into the world, feeling not that he owes a debt to the public, but that the public is greatly indebted to him. This spirit, however, is more observable in the young graduates than in those who have had a few years' experience in practical business affairs.

But why does the fact exist that these young men, fresh from the discipline of these supposedly ablest of men, the educators of our state, are so one-sided in their development? Why is it that these young men who, of all people, ought to do most for our free institutions, who ought to be leaders in the movement to secure honest and practical reform in the management of public affairs, why is it that of all people they seem least disposed to assist, encourage, and trust those who have done so much for them? Why is it that, as a rule, these men in after years bear less of the burden of taxation in proportion to their actual possessions than do those whose favors received from the state have been far less, using the training given them by the state to thus defraud the state of their just contributions to its revenues? Why is it that in the honest, manly efforts periodically made to equalize the burdens of taxation among rich and poor, intelligent and ignorant alike, these men whose influence would be worth so much, more often antagonize than aid the people whose wards they have been? Why is it that college presidents, college faculties, and the boards of control of these institutions who are oftentimes forced to adopt almost questionable methods in order to secure from the legislature appropriations necessary to the very existence of the institutions they represent, never lift a voice in support of equalized taxation when measures to secure it are under legislative consideration, when the whole difficult problem of securing a generous and liberal support for such institutions could be solved at a single stroke by an equalized assess-

ment from which no property is allowed to escape?

When it is remembered that these queries relate to facts which have existed for many years, and the truth of which is unquestioned, the only answer which satisfactorily explains their existence is that the influence of these great educational institutions upon our young men is lacking in an essential feature.

Is this condition of affairs to continue? Just so long as the people do not unite in a vigorous, practical, and intelligent protest, and no longer. The discussion of educational questions by the clubs during the year just passed, has gone a long way toward securing changed methods along these lines. And in their future work the clubs can do much to secure a more perfect understanding between the people and the educationalists of the state.

Probably the most dangerous, and yet really weak, argument against the further agitation of these questions by the people, is the one used before you at your last annual convention. In substance it is this: Our State government is worth all it costs, and the evils surrounding public affairs in this State are no greater than in adjoining States. These are true statements beyond peradventure of a doubt, and they might have been made stronger. Not only our State government, but every department of the government of our free institutions, is as priceless as life itself. But let us remember that the vital question is not "Is our government worth all it costs?" but rather "Is it costing more than it ought?" That it concerns us but little what evils exist in adjoining States, but that our plain and manifest duty is to secure for Michigan a reasonably economical and business-like administration of her affairs. To those ends is this movement devoted, and with their accomplishment our future work must deal.

I cannot leave this subject without a word as to the immediate future of the Association. I can add but little to the magnificent presentation of this phase of the work by President Kimmis. But one thing I wish to emphasize, and that is the great necessity of adhering closely to definite lines of work, and not attempting too much. If this Association, as a result of the deliberations which will occupy its next session, shall decide to adopt the line of work recommended by its executive committee, and already so well under way, it would seem advisable not to extend farther our plan of action at this time. If those measures, or even a majority of them, can be carried to success, a greater work will have been performed for the people of Michigan, in the furtherance of an economical and just administration of public affairs than has been accomplished in the previous decade. The work there outlined is concise, logical and comprehensive, and strictly non-partisan, and is certain to command the co-operation of all our people who are interested in good government.

It is a source of special congratulation that the president of this Association, under whose administration this phase of our work has largely developed, will be in position to do great service in the final effort which must so soon be made before the legislature, and that our confidence in his ability to do this work is so well founded.

And finally, whether it be in the work of the coming winter or in the greater work which will command the best efforts of this and kindred organizations for years to come, let it never be forgotten that our aim is to secure practical results. That to secure such results we need the co-operation and active support of every kindred organization and indeed of every fair-minded citizen of this State. That to secure such co-operation and support we must be conservative in our every effort, and have a just respect for the conscientious opinions of those who differ from us. That we must attract rather than repel. And especially that in our criticism of existing conditions we must be constructive, as well as destructive; that it is no mark of special genius to discover that a thing is wrong, but that the difficult and yet essential problem is to suggest a practical remedy.

With these things ever in mind, combined with a wise discrimination in our choice of leaders, the farmers' club movement has before it a work toward the betterment of society and toward securing the perpetuity of our free institutions, the possibilities of which are unlimited.

REPORTS FROM LOCAL CLUBS.

WEBSTER FARMERS' CLUB.

Resolutions favoring the Kimmis bill were passed after a brief discussion, also condemning the repeal of the mortgage tax law. A copy of these resolutions were ordered sent to our representative. The meeting was held Saturday, April 10th, at the residence of ex-Supervisor Edwin Ball, who urged the passage of the resolutions. In fact, no opposition was offered.

As the attendance was not large numerically, some suggestions were offered toward making the sessions of the club more attractive to the farmers in general. Monthly meetings were decided upon instead of bi-monthly as in the past.

R. E. REEVE, Cor. Sec.

WEBSTER FARMERS' CLUB.

The Webster Farmers' Club, of Oakland, met at the home of Mr. and Mrs. Thomas Seamark, April 7.

Mrs. Josiah Emery read a very interesting paper on the ideal home. It was urged upon us to make home just as pleasant and attractive as possible. Open the best room in the evening, lay all work aside, join in the games and pastimes of the children;

finally make the hours thus spent together so pleasant that in after years they will look back on them as the most pleasant of their lives.

Mrs. Thomas Seamark read the paper entitled "Women's influence in farmers' organizations," presented by Mrs. Johnstone (Beatrice) at the annual meeting of the State Association. All readers of the FARMER will undoubtedly remember the paper. It contains much food for thought. The question, How to raise potatoes successfully, was then taken up. Some believe in planting in the moon, others in the ground when all conditions are favorable, regardless of the moon. L. L. Richmond thought too much manure made scabby potatoes. S. C. Elwood thought ground for potatoes should be very rich; he did not think manure produced scab. W. E. Carpenter, quite a successful potato grower, said he liked to manure his potato ground well, then plow it as early as possible, and roll it down; that would hold moisture, then when he was ready to plant, work it up thoroughly, mark and plant to a depth of three inches. In case it should be dry at that time there would be moisture enough in the soil to bring up the potatoes. He liked to cut large potatoes to two eyes to a piece, but last year seed was so cheap he planted some whole seed at the rate of sixteen bushels to the acre. He wanted to put as many out of sight as possible; they yielded about three hundred bushels to the acre. Some hills contained sixty potatoes; quite a good many were cow feed, but a fair yield of saleable potatoes. The question box brought out some such questions as these: Which pay best to raise, ducks or turkeys? How to treat oats for smut? What would you do with a husband who was always finding fault with his victuals? The answer was go visiting and let him cook his own for a while. What are your ideas of free mail delivery in rural districts? Most thought they would like that. We had an addition of eight new members to our club. We shall discuss the association question and how to raise corn successfully at our next meeting, which will be held at the home of Mr. and Mrs. John Botcher, May 5th.

MRS. T. SEAMARK, Cor. Sec.

LEBANON FARMERS' CLUB.

Our club met at the home of Mr. and Mrs. F. M. Piggett, April 1st.

Lewis Bently read a paper entitled, "Where are we drifting to, as a nation?" He said, "We are controlled by trusts and combines, and are under a depression hardly equaled by the slavery of the black man."

According to his idea, the single gold standard is largely to blame for this condition. In the discussion which followed, the general opinion was that the trusts and combines should go, and that we could get along much better without them.

At the afternoon session the secretary reported that he had fulfilled the requirements by which this club had now become a member of the State Association.

The question box was followed by a general discussion of the subject, "Taxation of Mortgages," led by Jay Sessions. He does not believe that mortgages should be exempt from taxation, but thinks the present law a poor one. His plan would be to adopt a law similar to that of '91, changed so as to prevent the mortgagor from requiring the mortgagee, by contract, to pay the tax.

A great deal of interest was taken in this subject by the members present, and all agreed that the law should not be repealed. The following resolution was unanimously adopted by the club:

Resolved, that Lebanon Farmers' Club, composed of forty-six members, considers the repeal of the mortgage tax law an unjust measure, and are decidedly opposed to it.

After singing "America," the club adjourned to meet with Mr. and Mrs. Martin Winans, May 6th. C. F. ABBOTT, SEC'Y.

UNION FARMERS' CLUB.

The April meeting of the Union Farmers' Club was held at the home of Mr. and Mrs. Lemuel Smith. It was a pleasant day and we noticed several of the men were absent.

In the forenoon, H. P. Keys gave a talk on spraying. His idea is to induce a vigorous growth by cultivation, as blight and insects attack the puny trees. He also holds this is true of potatoes, squashes, etc. He has transplanted squashes from his neighbors' plants and raised them, while his neighbors failed.

Governor Pingree's circular, with reference to raising the Attorney-General's salary, was read, and the club opposed the same, as there was no limit to outside hire.

After dinner the regular program was carried out.

"Ought mortgages to be taxed?" was discussed in a spirited manner. The following resolution, drawn by Messrs. Keys, Ingersoll and Woodbury, was adopted:

Resolved, That we, members of the Union Farmers' Club, duly assembled in regular meeting at the home of Mr. and Mrs. Lemuel Smith, do unanimously protest against the repeal of the Mortgage Tax law, or any other class of legislation whereby personal or real property not owned by the public or created for the use of the public, is thereby released from paying its just share of taxes, and be it further

Resolved, That a copy of this resolution be placed with our representative, C. E. Jackson, at Lansing, and by him placed before the State legislature.

Adjourned to meet with Mr. and Mrs. H. P. Keys the first Saturday in May.

MRS. L. SMITH, Cor. Sec.

CONCORD FARMERS' CLUB.

This club met at the home of Mr. and Mrs. A. S. Wolcott, April 10th.

A paper was read by Mrs. Maggie Bartell which brought out much discussion. She spoke of the large number of farmers' wives to be found in our insane asylums, and attributed this sad fact to overwork of

mind and body. She said to-day is constantly stealing from to-morrow, and pillaged to-morrow count when we take them off at the other end of life.

She spoke of the necessity of acquiring the art of cooking wholesome food for the family and considered this the most useful and important of arts. Mrs. Bartell thought all should labor, as it was the heritage handed down to mankind, where the command went forth, "Thou shalt earn thy bread by the sweat of thy brow." She thought the daughters should be trained to help in the home, and thus lift some of the burdens from the mother's shoulders.

Question for discussion, "Ought mortgages to be taxed?" Opened by Mr. Henry Findley. He regarded this question as one of great interest to the members. Quite a lengthy discussion ensued, and the opinion was expressed that a law that favored double taxation was an unjust law.

Second question "Does it pay to keep thoroughbred stock?" It seemed to be the opinion that thoroughbred stock, if well fed and cared for, would thrive better and bring a better price on the market.

The value of rape for sheep was then discussed. Some thought they would not do without it, others having tried it could not speak in its favor. The club then adjourned to meet the second Saturday in May.

JOSEPHINE THRESHER, Reporter.

EMERSON FARMERS' CLUB.

The April meeting of the Emerson Farmers' Club was held at the home of Mr. and Mrs. B. M. Coffin.

Several new members were added to the club, making a total of thirty-two.

After the discussion of queries, new officers for the next six months were elected.

President, C. A. Van Deventer; Vice-Pres., E. K. Allen; Secretary, Alice M. Brown.

Motion made that our club apply for membership to the State Farmers' Club Association. Carried.

The next meeting of the club will be held at the home of Mr. and Mrs. Helms, May 13, 1897.

ALICE M. BROWN, SEC'Y.

HOWELL FARMERS' CLUB.

On March 10th a number of farmers and their wives met at the pleasant home of E. E. House and wife, and organized a farmers' club. The election of officers resulted as follows: President, A. F. Peavy; vice-president, E. E. Latson; recording secretary, Mrs. W. C. House; corresponding secretary, Mrs. R. R. Smith; treasurer, S. Hildebrand; directors, R. E. Smith, W. C. House; committee on constitution and by-laws, R. R. Smith and E. E. House; committee on program, Mrs. E. E. Latson, Mrs. S. Hildebrand and Mrs. T. Andrus.

Meeting adjourned to meet with Mr. and Mrs. A. F. Peavy, April 7th.

MRS. R. R. SMITH, Cor. Sec.

NORVELL FARMERS' CLUB.

At the meeting held with F. W. Smith on March 27, T. B. Halladay was elected president of the club for the sixteenth time. A. R. Palmer was continued as secretary. L. D. Watkins was made vice-president and C. P. Holmes treasurer.

Mrs. C. P. Holmes, in an essay read, said that men would differ as to the most important issue before the American people, but women would be of one mind in naming the temperance question. She suggested that the best means to secure better laws is to enforce those now in existence.

The work of the board of supervisors was the subject discussed. S. W. Holmes said that the board of Jackson county was in session 27 days, at a cost to the county of about \$100 per day. The meeting held in April was unnecessary, and the other sessions might have been shortened. The June meeting was perhaps necessary to prepare for the meeting of the State Board of Equalization. C. P. Holmes did not believe it necessary to hire a lawyer to look after the interests of the county before the State board as was done. Jackson city pays 42 per cent of the total county taxes.

M. L. Raymond, of Grass Lake, believes that public servants should be well paid, then required to render faithful service. Many difficulties are met in the work of the board; men of stamina and integrity are needed for its members. Observes that taxes are lower in Washtenaw county than in Jackson.

W. R. Mount and S. M. Merrithew agreed that the board wasted much time; the latter favored a set salary for the supervisor. A. Hitchcock is well pleased with the working of the salary plan in Washtenaw county.

A. L. Watkins thought the allowance of 35 cents per day for board at the jail was high enough, considering that the cost at the State prison is only about nine cents per day.

T. B. Halladay advised the townships to keep a good man, when found, on the board as long as possible. The drudgery of the work of the board is done by the country members. The miscellaneous claims, bills of coroners, city physicians, etc., are the worst class to deal with. The sending of a lawyer to plead for the county before the State Board of Equalization was bad practice, wrong in principle. If one county does this, others will need to, and where will the practice end. The State board ought to be competent and trustworthy and not need a lobby.

The collection of farm statistics was spoken of briefly, the majority favoring the continuance of the practice, as affording the only means by which the farmer could judge of the supply and probable demand and so meet the dealer on something like equal ground.

A. R. PALMER, Sec.

MERIDIAN FARMERS' CLUB.

The April meeting of this club was held at the residence of Mr. and Mrs. Sieb.

The Association question, "Ought mortgages to be taxed?" was discussed and the following resolution was passed: Resolved,

That we, as members of the Meridian Farmers' Club, do not favor the repeal of the mortgage tax law.

There was one question in the question-box that was of interest: Should we have the Curfew law for our country? Answered by Rev. Row, of Lansingburg. He spoke highly in its favor; thought it a judicial law which we should have in Michigan. Mr. Switzer, of Canada, spoke on cheese making. He thought it a profitable business for farmers to invest in, and Michigan cheese could be made to bring a better price, and by careful management they could raise the reputation of Michigan cheese. Mr. Graham, of Lenawee county, was interested in the creamery business and spoke of the profits and benefits to be derived from that branch of business.

Next meeting April 30th at home of Mr. Edison Swarthroat.

MRS. B. H. BALCOM, Cor. Sec'y.

COE, CHIPPEWA AND LINCOLN CLUB.

The Coe, Chippewa and Lincoln Farmers' Club held one of its most successful meetings at the home of Mrs. Daniel Childs in Coe township, on Thursday, March 25th, 1897.

The roads were simply terrible, about six inches of snow on top of a road with an unknown bottom, but in spite of snow and mud about forty were present, and what the club lacked in numbers was more than made up in enthusiasm. In fact it proved to be one of our very best meetings.

After the usual opening exercises Mrs. Daniel Childs welcomed the club in a few well chosen sentences full of earnestness and sincerity. The response by Mrs. E. H. Estes was good, she making many good suggestions; she spoke feelingly of the loss of our brother Daniel Childs, who, last October passed to the great beyond, leaving a gap in our ranks which can never be filled.

Mrs. J. J. Upton's paper, "The sum of a successful life" was very interesting. Success does not depend alone on amassing wealth, but succeeding in any undertaking in life. It was well illustrated.

Rev. Russell, when called upon to discuss this paper, said, "I commend it with my whole heart."

Then came the question which brought out liveliest discussion: Do we get value received for money paid county commissioners of schools?

J. W. Moore, who was to make the principle talk, did not say much at first, but it set the ball rolling. He did not think it a paying investment.

A. C. Rowlander thought if the right person was commissioner it would be a good investment, every business needs a head and he knew of nothing better than the commissioner, but he should be the right man for the place.

Mrs. J. J. Upton thought the office a nuisance as it was now conducted. J. J. Upton was not satisfied with the system.

Rev. Russell spoke from experience, as he had filled that office and was an old teacher; he believed that the right kind of person, one who had the good of the schools at heart as well as the salary, one who was qualified in every respect could be of much value.

A. C. Rowlander believed the office should be kept out of politics. Aspirants should pass a thorough examination before a state board and if a county had not the right material, get it from some county which had, as we get principals of schools.

J. W. Hudson thought that had our commissioners been the proper men more good would have been accomplished.

E. H. Estes told some cold facts in regard to abuses of the office.

J. W. Moore made some good points, proving the office was an expensive luxury and 'twould be better without the office.

Further discussion will be had at our next meeting.

As this was our annual meeting the election of officers now took place, which resulted in electing C. W. Hudson president for another year; J. J. Upton was re-elected vice president, O. H. Adams was elected secretary, A. C. Rowlander was re-elected cor. sec'y., Mrs. J. Kratz treasurer. The president then appointed a committee on program, a committee on refreshments and a committee on music. Another song and an adjournment to the home of Vice President J. J. Upton the last Thursday of April, closed one of our most

successful meetings and all went away feeling it was good to be there.

A. C. ROWLANDER, Cor. Sec'y.

COLUMBIA FARMERS' CLUB.

At the meeting with P. Malott on April 10th, a resolution favoring the collection of farm statistics was adopted.

In an essay on Farmers' Wives, Mrs. R. D. Palmer urged them not to educate the family to the idea that they must have something extra to eat on Sunday, but let there be rest as far as possible in the kitchen as elsewhere on that day.

In opening the discussion on "Improved Methods of Club Work," John O'Leary thought the tendency in preparing our essays and papers was to take too much from books and papers and not enough from our own heads; to represent ideal and not practical things; to theorize rather than tell what we actually practice.

A. W. Dunn suggested an occasional parliamentary drill as likely to be interesting and helpful.

W. C. Weeks feared the club was losing its younger members. He proposed turning the club into a legislative hall and discussing matters that were engaging the attention of the chambers at Lansing.

Most of the discussion referred to tables and dishes for the use of the club.

A. R. PALMER, Sec'y.

CLYDE AND GRANT FARMERS' CLUB.

This club was happily entertained at the pleasant home of Mr. and Mrs. Dexter Hubbell, of Grant, and largely attended.

After an excellent dinner President Beard called to order and L. B. Rice's letter containing offers of sugar beet seed at wholesale price was read. A number responded and will raise an experimental crop this season.

Lester Cole, of Grant, who had taken a short-term course at Agricultural College, gave a very interesting sketch of his practical work and gave us some points on dairying. He gave the idea that it would not be a difficult matter to apply the science, as taught there, practically on the farm.

An excellent and timely paper was read by Mr. Burch, of Grant, Study on the Farm. It was full of good points for the consideration of our young men especially. He had learned by experience that a lifetime was too short to conquer the details of management of farm work. Want of time prevented a full discussion.

Resolutions on the death of Aaron Earnest, a respected member of the club, were adopted and the club adjourned to meet on May 5th at the residence of B. D. Smith Esq., of Clyde.

MRS. OSCAR McKAY, Cor. Sec'y.

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F. L. TOTMAN.

Bardwells Ferry, Mass., Feb. 11, 1897.

Many such letters in our Pamphlets. They are free.

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Vermont Farm Machine Co., Bellows Falls, Vt.

Miscellaneous.

For the Michigan Farmer.

THE BRAHMIN AND HIS GOAT.

WARREN LAMPORF.

A Brahmin, who a vow had made,
A goat upon his shoulder laid
And hurried off upon the way,
The promised sacrifice to pay.

Three thieves, a sly and slippery set,
Resolved the animal to get,
And placed themselves along the road
O'er which the Brahmin bore his load.

Now, such the mind is that, at first,
'Tis slow to think the very worst;
Both things that shock and things that please
We take in somewhat by degrees;
A fact those three rogues full well knew,
And plans accordingly they drew.

As on his way the Brahmin went,
His thoughts on holy things intent,
He chanced not far along to get
Before the foremost thief he met.
The rogue his burden sharply eyed
And, with a look of wonder, cried:
"O Brahmin! tell me why, I pray,
You bear that cur along the way?"

"'Tis not a cur," the good man said,
"But I have here a goat instead;
You find me with it on my way
A promised sacrifice to pay."
And well assured his pious ways
Must win the honest stranger's praise,
He hastened on, with downward look,
As one who ponders o'er a book.

But soon again his pious thought
To sudden terminus was brought,
As, standing in the way, he spied
The second rogue, who also cried:
"O Brahmin! tell me why, I pray,
You bear that cur along the way?"

At this the Brahmin was perplexed,
And likewise not a little vexed;
He placed his burden on the ground,
Looked calmly at it, walked around
And viewed it o'er on every side,
And to the stranger thus replied:

"Indeed, good friend, no cur is that,
It is a goat both sleek and fat;
I bear it with me on my way
A promised sacrifice to pay."
Then lifting it upon his back,
Again he hurried o'er the track.

And yet, if truth but be confessed,
The Brahmin's mind was ill at rest;
The wonder fast upon him grew
If what the sangers said were true;
Were things sometimes not what they seem?
Or, was he walking in a dream?

Indeed, he'd just the frame of mind
The other rogue now hoped to find;
And so, with looks of great surprise
As one who trusted not his eyes,
He loudly hailed him by the way:
"O Brahmin! Tell me why, I pray,
You hasten thus along the track
With that vile cur upon your back?"

Enough! What more could he endure!
His goat was but a dog, for sure!
And filled with horror and dismay,
He cast the sacrifice away,
And quickly sought the absolving priest
To cleanse him from the unclean beast.
While those three rogues on plunder bent
Picked up the goat and homeward went.
VICKSBURG, MICH.

THE LADY IN BLACK.

Why Miss Neville constantly wore black was a source of unending speculation to her friends and admirers. She was a tall, dark, queenly woman, with a perfect face and form, to whom everything, however extravagant in hue or style, could not fail to be becoming. Moreover, she had been heard to say that red was her favorite color, and the natural question why she did not wear it was never satisfactorily answered. Add to this the fact that her face when in repose was decidedly sad, and we cannot wonder that her lovers had many anxious moments. For if she were cherishing the memory of a lost love, as seemed more than probable, the chances for any of them was exceedingly slim.

Mark Dallas and Nelson Grand were the most persistent of the men in her train. Dallas was so constant, seeming to breathe nowhere but in her presence that those who knew him earnestly wished him success in his wooing. Grand loved as truly, no doubt, and was as constantly at his divinity's side, but he attracted little sympathy. He talked too much—made too many confidants, and had not Dallas' faculty of intimating without words his forlorn state. He repeatedly asserted that should he not win Miss Neville's heart he would never smile again. His friends only half believed this; yet, when Dallas was approached on the subject and said never a word, but turned his soulful eyes in the direction in which Miss Neville was supposed at the moment to be, they felt that should she decline to bestow on him her hand, not only would he never smile again, but his faithful heart would be immediately broken.

They were all the guests of that hospitable entertainer and thoroughly good fellow, Jim Sepore, and his charming wife, Miss Neville and her two lovers lingered in their luxurious house after all the other visitors had departed, as if these were to be the last perfectly happy days of their lives. But a morning came when Miss Neville said she must leave the next day. Then it was that the two men suddenly remembered neglected business, and declared that they, too, must go.

That evening they sat for a long time in the library, with only the coals in the grate and the dim moon to light them. After Mrs. Sepore had gently chided her guests for their intended desertion, they came by

degrees to talk in that restful confidential tone which true friends talk when the stars are coming out. Miss Neville sat at the window, and with uplifted face was gazing at the sky. Dallas leaned on the back of her chair, with his proud head bent over her, and Grand sat by her side.

Presently Mrs. Sepore addressed her lovely guest.

"Maude dear, I hope you will not think me curious, but I have often wondered why you wear black so constantly. I wish you would tell us the reason now. This is just the hour for confidences."

Miss Neville turned her mournful eyes in the direction of her friend, but before she could answer her, Grand spoke.

"I, too, have taken the liberty to speculate upon that question."

"And I also," Dallas remarked softly, as if he wished the fact to convey something especially significant to Miss Neville.

"How interesting!" she exclaimed. "I would like very much to hear the causes you have assigned for my taste in colors."

Then, as if a sudden thought had occurred to her, she added, "If you will both write what you think is the reason I wear my sombre robes, I will set down the real cause truthfully—and you shall read my confession."

"But," said Dallas, in that tender tone of his, "perhaps the subject is painful to you; if so, it would be cruel to take you at your word."

She raised her eyes to his in answer—that brief moment was the sweetest his life had known.

"We must all suffer more or less," she answered; "so I will lay bare my woman's heart, and you shall know its secret."

"Oh, how delightful!" cried the vivacious Mrs. Sepore, who could not see the serious side of anything. "Out with your pencils, gentlemen, and get to work. You can have your romances ready in an hour, I'm sure."

She ran about the room like a busy butterfly, supplying her guests with the necessary writing materials, while Mr. Sepore lit the gas; then she took her place at her own little table, and challenged her husband to a game of chess.

"For you know, Jim, they can write much better when we are not looking at them," she whispered.

In less than an hour the three papers were ready, and placed in Mrs. Sepore's hands. All settled themselves to listen to their contents. Miss Neville's face was slightly flushed, as if with unwonted feeling. Mr. and Mrs. Sepore looked sympathetic and interested. Dallas took up his usual position behind Miss Neville's chair, and Grand sat in a dim corner opposite. The first manuscript that Mrs. Sepore opened was Grand's.

"One man out of many who adored her won the greatest blessing earth could bestow—her heart. He had loved her long and faithfully, had tortured himself over and over with the thought that she would never return his affection—had looked on in agony when she smiled on others; but at last this was over, and she had promised to be his. But the monster, Jealousy, clutched his heart. In his eyes every friend was a traitor who would wrest from him his prize."

"One winter day, a day as dark as his brow, with low-hanging clouds as heavy as his heart, the two were together in the warm, fire-lit room. She, exquisitely happy, was gazing into the softly glowing coals, dreaming bright dreams, all of them centered around the man who, half leaning on the mantel, looked on her with adoration, and noting each shadow which the fire cast on her features, seemed to grudge it its momentary play."

"She dreamed on, not seeing the frown on his brow. She would have missed all the thrilling joy she felt at this moment had he been absent, yet she was only half conscious of his presence."

"He could not understand why she was so silent. The complete stillness irritated him, and at length the passion he had been nursing broke forth."

"You are thinking of him!"

"His low and intense tone cut the stillness like a knife."

"Of him!" she repeated, languidly raising her eyes to his.

"She was only half awakened from her dreaming, and had not comprehended his words. But she heard his voice and responded to it with a thrill."

"Yes, of him!" he repeated, his heart wrung by that emotion the pangs of which are more bitter than death, more poignant than despair. The will he exerted to prevent his tones from trembling made his words sound cold and angry. "I saw you as you crossed the fields this afternoon, and I noted how he bent his head to catch your slightest utterance."

"In his tones she heard nothing but jealous rage. In his stern face she saw naught of the agony he was enduring. If she could have known, she would have pitied instead of condemning him."

"She stood proudly erect, her face flushing deeply from the pain of the wound he had inflicted. He thought it the flush of guilt, and watched in silence as she drew the golden circlet from her finger."

"I told you last night that if you could not trust me to speak one word or give one look to a friend we must part," she said. "Of all things I abhor jealousy. Farewell!"

"He heard the metallic clang of the ring as it fell on the table, and knew that he was alone."

"Lost, forever lost!" he cried. "And she—she is glad to be free!"

"With a sad face and clad in sombre robes, she moves through life with grief but not with regret as her companion, for a jealous man is despicable in her eyes."

Grand's story contained Miss Neville's history. Grand leaned out of his dark corner in an effort to see her face, but her hand completely hid it. She made no sign, and after a pause he sank back again. Mrs. Sepore took up Dallas's story:

"To a man blessed beyond all other mortals, she gave her heart. He lives nowhere but in her presence; she was the cord in his harp of life which made every dissonance a harmony."

"Joy too great to last! One morning he awoke from his blissful dreaming to find that he was dying. Yes, dying, after a few days of illness which he had been almost too happy to notice."

"Go tell her, my idol, she who was to have been my wife, that I must leave her," he said to his attendants. "Break it to her gently. I know the agony this will be to her, for our souls are one. Beg her to come before my lips are too cold for her kisses to warm them. Ah—thank God, I hear her step!"

"An hour more, and for him the pain of parting was over. For her it had just begun."

"Bitterly hard it is to say good-bye to love and happiness. Clothed in dead-lustre black she lives on, doing the work they two planned, learning to smile for the sake of those still left to love her, but knowing that the one happy day of her life yet to come will be that on which she knows she will soon join him in Paradise."

Again Mrs. Sepore paused, but Miss Neville made no sign. After a little she took up the last manuscript. Grand moved nervously in his dark corner, and Dallas turned his face toward the friendly shadow of the window while Mrs. Sepore read:

"Once I thought that never could I reveal this secret; never would I lay bare my woman's heart. But now that I know the man whom I love and honor above all other men loves me, I feel that this explanation must be made. There should be no secrets, however trivial, between us."

"My pride refuses to confess directly to him, so I take this course. If, after this reaches his ears, he looks coldly on his idol of clay, then I can still smile, and suffer in silence."

"I think I can say truthfully it was through no fault of mine that my friends wove such a pretty romance around me. At first I was rather startled when I heard the eulogies, implied rather than spoken, on my faithfulness to an absent or a dead lover. But the homage I received in consequence pleased my vanity, and I allowed the curious to speculate, simply holding my peace."

"This is my confession; I speak it solemnly, as if it were an oath; I have worn black all these years because I regard it as the most becoming color I can wear!"

There was a moment of stupefied silence, then Mrs. Sepore burst into a ringing laugh. But Maude did not echo it. She had taken the shielding hand from her face, and was looking timidly at Dallas. Now that he knew she was only a vain woman, would he love her still?

He was smiling, but his eyes were very tender.

"Darling," he whispered, "you promised to give me my answer to-night. A woman who knows what best becomes her dear face, and is sensible enough to wear it, is the one I want for my wife."

Grand, who had advanced a step out of

his shadowy corner, shrank back again. The old pain of hope, uncertainty and fear was gone but a newer and keener pang had replaced it.—*Waverley Magazine.*

VARIETIES.

A DISCOURAGING SIGN.—Mrs. Hunniker—I'm really discouraged about our Will. I don't believe he is destined to be a great man, after all.

Mr. Hunniker—Nonsense, nonsense! What's put that idea into your head?

Mrs. Hunniker—Why, look at this letter I've just received from him. He's been in college two years now, and his handwriting is still so good that you can read it right off, about like print.—*Cleveland Leader.*

A SMALL company of fishermen were seated in a Cardiff hostelry. They were telling fish stories.

"The most exciting day's sport I ever had," said one of the company, an American, "was when I was off Labrador. I was with two others; each had two rods, and we were simply pulling out fish as fast as ever we could put in our lines. I forgot," he added in a thoughtful tone, "what those fish were."

"Whales?" suggested an Englishman, with an attempt to be sarcastic.

"Whales!" said the Yankee, with a deprecatory wave of his hand; "why, man, we were baiting with whales!"—*Answers.*

THE Albany Journal tells a story of two green reporters, Englishmen, who were sent by the city editor of a certain newspaper to a suburban town to write up the burning of an orphan asylum. Late that night, when the news editor was wondering why no "copy" about the fire was coming by wire, a telegraph messenger rushed in and handed him a dispatch. He opened it and read:

"Dear Sir: We are here. What shall we do?"

It was signed with the names of the two men sent to "write up" the fire.

The news editor made a few remarks which, while they were appropriate to the occasion, would not look well in print; then he wrote on a telegraph blank this brief message:

"Find out where the fire is hottest and jump in."

ROBERT INGERSOLL, who is coming to Chicago with a new lecture, is fond of good books. During one of his visits to Chicago he and a friend went to one of the big book stores on Wabash avenue to examine the treasures on the shelves and counters. They had roamed around the establishment discussing history, romance and theology, and finally the friend said, picking up a volume:

"Ah, Colonel, this is the book you like."

"What is it?" he asked.

"Tom Paine's 'Age of Reason.'"

"Yes, it's a good book, but mighty expensive."

"Why, I didn't think so."

"I have a copy, and what do you think it cost me?"

"I don't know, I'm sure."

"The Governorship of Illinois."—*Chicago Record.*



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The Dairy.

For the Michigan Farmer.

MILK PRODUCTION.

I am always interested in anything pertaining to the dairy, and like to know what others are doing in the business. For this reason I like to see reports in the papers giving records of herds, and how the owners feed in order to obtain given results.

If anyone obtains better results than I am able to get, I like to know the kind of cows they have and their way of feeding. I was much interested in S. W. Conklin's report of what his cows are doing, and although I am producing milk for the Detroit market instead of making butter, I thought perhaps a report of what my cows are doing and how I am feeding would prove interesting.

I have a herd of ten cows, every one of which has more or less Jersey blood, running from full-blood down to three-sixteenths Jersey. But seven of them are in milk at present, and I give their record for one day, March 24:

Name.	Age in Years.	Time of Calving.	Lbs of Milk.
Topsy.....	6	Mich. 1, 1897.	50½
Dinah.....	5	Sept. 30, 1896.	34½
Sue.....	4	Feb. 9, 1897.	46½
Clover.....	10	Mich. 9, 1896.	22
Brownie.....	2	Jan. 26, 1897.	25½
Spot.....	3	Dec. 28, 1896.	30½
Belle.....	2	Feb. 14, 1897.	28½

Sue and Dinah are full sisters, their dam a half Jersey, and sire a full-blood Holstein. Topsy is half Holstein, one-fourth Shorthorn and three-sixteenths Jersey. Clover three-fourths Jersey. Spot is half Jersey and half Holstein; Brownie and Belle are pretty well mixed. I bred and raised all but two, Dinah and Spot.

Dinah I bought, with her mother, when a calf, and Spot when about six months old. I confidently expected that Spot, from her breeding, would be something extra, and as a two-year-old with her first calf she gave promise of it, giving as high as 39 pounds in one day. When she came in this last winter she lost the use of one of her front teats, and I am afraid permanently.

Topsy, although getting along well with calving, did not seem well for some time, and did not develop the appetite I like to see a cow have; although her bag did not cake or seem feverish after calving, her milk was not good until the tenth milking.

Right here let me give my method of telling when a cow's milk becomes good after calving. Place some of the milk in a small tin dish, (my wife uses a patty tin), set it on the stove and let it come to a boil. Set it off and let it cool, and if any milk coagulates on the bottom of the dish the milk is unfit for use.

I gave the cow a dose of physic, consisting of one and one-fourth pounds epsom salts and two ounces ground ginger. I poured over these three pints boiling water, and when cool enough to give, at about 100 degrees Fahr., gave as a drench in one dose. Let me say, if you have a cow out of sorts, give her a dose of physic as above, giving less for a small cow, and watch results. A dose of physic will never hurt a cow, even if it does her no good.

To the seven cows I am feeding 250 lbs. of ensilage well eared, 65 lbs. clover hay, 48 lbs. bran and 24 lbs. corn and oats, mixed equal parts by measure, and ground. Now for the cost:

250 lbs. Ensilage @ \$2 per ton.....	.35
65 " Clover hay @ \$3 per ton.....	.19½
48 " Bran @ \$10 per ton.....	.34
24 " Corn and oats @ \$10 per ton.....	.12

Total......80½

This makes an average for the seven cows of just 11½ cents per day as cost of feed. The cows are not all fed the same amounts. For instance, Sue and Topsy are getting from 36 to 40 lbs. of ensilage, eight lbs. bran and from three to six lbs. corn and oats per day, in addition to all the clover hay they will eat up clean. I am inclined to think that if I could add a couple of pounds of oil meal a day to the feed of the cows giving the most milk, that they would more than pay for it in increased yield.

If there is one thing more than another that I admire in a cow, it is her ability to eat as long as I can stand and chuck it to her, combined with the ability to put all surplus food, over and above a maintenance ration, into the milk pail.

I am selling the milk of all these cows but Brownie, whose milk I keep for family use, and shall till my full-blood Jersey, whose milk I cannot afford to sell at prices paid for milk, comes fresh. The milk which I sell from the six cows will bring me, for March, between \$55 and \$60, a profit, over and above cost of feed, of some \$34. My milk, the last time it was tested at the milk house, tested 3.9 per cent.

I think I am making my cows do fairly well, although there are others near Denon who are doing even better than I am. Since Dinah came in, Sept. 30th, 1896, she has given an average of 40 lbs. a day, or in the neighborhood of 7,000 lbs., which, at the prices being paid for milk, would have brought over \$65.

Topsy gave milk continuously from the latter part of March, 1895 for a year, giving an average of 29 lbs. a day or 10,385 lbs. during the year.

Should you see fit, Mr. Editor, to use the foregoing, I hope the average dairyman may find something suggestive in it, if not helpful.

WM. DEYO.

WAYNE Co., Mich.
[This is instructive, and should encourage others to report what their cows are

doing. It will be noted that both quantity and quality must be taken into consideration in keeping a record of the individual production of each cow in the herd.

The number of pounds of milk given daily by the first three cows would astonish many dairymen who keep cows having Jersey blood, but the Holstein and Shorthorn admixture no doubt helps out, so far as quantity is concerned.

We wish friend Deyo had tested these cows individually, and reported along with the quantity given daily. Which cows would prove the most profitable as butter-makers, provided you were not selling the milk?

For your purpose, no individual test was necessary, but we would like to know more about this herd from a butter-making standpoint. Our friend makes an excellent report, and there are probably very few dairymen around Detroit who can beat him in milk production, from a herd of seven cows, judging from what we can learn from a single day's report.—Ed.]

For the Michigan Farmer.

MOST BUTTER ON LEAST FEED.

Under the head of "Questions Answered" on page 145, in your issue of Feb. 20, I think there is an error in the answer to the first question.

The writer says: "The World's Fair test indicates that the Jersey made the largest amount of butter with the least feed."

Now this is not at all as I remember it. While the cow that made the largest amount of butter was a Jersey (and by the way she died before she reached home), the cow that made a pound of butter on the least feed was a Guernsey.

Also the answer given to the third question is not according to my experience. I always let the calf suck till about four days old, and, in case of caked udder, I let the calf run with the cow till the inflammation subsides. This, in the case of a heifer I have just had to deal with, was nearly two weeks, and every time, since the first, the calf has drank without the finger, nor is this an exceptional case.

WASHTENAW Co., Mich. W. FITCH ALLEN.

For the Michigan Farmer.

AN INQUIRY.

I was much pleased with Josh. Eldt's article on marketing farm butter.

We of Southern Michigan are in the same condition he was in, having plenty of small towns, but no city large enough to afford private customers for any amount of butter, less than 17 miles away.

Now will Mr. Eldt please tell us where to send for the packages, and did he send a trial package to a grocer or a private family? Can you give names of firms that make packages, and of reliable parties that want butter? C. M. HESS.

[Write one or more of the firms that advertise dairy goods for the FARMER for what you want in wrapping or packing butter.

As to the names of "parties" or commission men who want nice butter, we cannot say. We took samples of our butter in pound prints to the city and personally hunted up customers. Have never tried commission firms, and could not recommend any certain house, for reasons that have been frequently stated in past issues.—Ed.]

SILLO NOTES.

Consider the Number of Your Herd when Building — Experience with Different Modes of Covering.

We opened our silo this season about the middle of November and, as usual, it is being fed out with good success. Our ensilage isn't keeping quite as well this winter as it did last, due to the fact that we are unable, on account of want of sufficient stock, to feed it as fast as we ought. Yet the quality is good and stock take to it freely.

Right here is a thought that can well be considered by anyone who is contemplating building a silo. Don't build it too large. This is important. It does not matter particularly how deep you build it, but it does when you come to surface measurement. A person should know as near as possible how many head of cattle he intends to feed, and build in accordance with that number. If you intend to feed only about twenty, don't build a silo large enough for thirty. If your silo is designed for thirty head and you are only feeding about twenty, it is obvious, providing your surface measurement has been rightly ascertained, that you are uncovering the surface just a third faster than you can possibly feed it out. Of course, this is on the assumption that you uncover the entire surface at once, and not cut it down in sections as some recommend.

We have a small silo, 22 feet deep, with a surface 15x15 feet. Our experience has been that about 20 head of medium-sized cattle can dispose of the ensilage sufficiently fast to obviate any danger from spoiling.

We would recommend that about ten square feet of surface be allowed for every animal you intend to feed. Of course there are other things that may enter in which may change these figures. It will depend somewhat on what sized cattle you keep and the object for which you are feeding. It will depend also on what kind of corn you

fill the silo with. A small corn will produce a better quality of ensilage than an extra large. It may depend on the keeping qualities of your silo, also. But from our experience we would say that ten square feet will do for the average "critter" under ordinary circumstances.

There are various methods recommended for covering the cut corn while it is curing into ensilage and we have tried several of them. The first year we had a silo we acted on the idea that was then prevalent for rendering the upper surface air-tight. We packed 18 inches or two feet of straw on top of the chopped corn, and on top of this a thickness of closely laid lumber, and last, a goodly amount of wood to hold it down. It is needless to say that it all took work, and we have concluded since that it was work that brought no special returns.

The following year we used six or eight inches of fine wheat chaff. This was soaked down by fifteen or twenty pails of water. The only object secured by using water is to hasten the decay of the straw and all the sooner render it air-tight. This can be done without injury to the ensilage. Our ensilage came out the first year in good condition, but not better than it did the second, and we were almost inclined to think not quite as good. At any rate, we concluded the extra work of the first year didn't pay. We have always had good success by simply covering the cut corn with straw and wetting it down.

Two years ago a neighbor tried leaving the silo uncovered entirely, not even putting on a light covering of straw. He reported such good success that we concluded to try the same idea, which we did last fall. Whether or not we didn't quite follow directions, the writer doesn't know, but at any rate our experiment wasn't so much of a success as we had hoped. Where the neighbor reported a loss of only three or four inches—practically none at all—we had a loss of several inches, more or less spoiled.

While it will depend a good deal on the person, it is the writer's opinion that it will pay to go to the extra trouble of putting on a covering of straw or chaff, the latter preferred. We have a neighbor who always uses apple pomace for his silo covering; apparently he has the best of success and it is no doubt practicable when one can get the pomace handy; but we question the advisability of hauling it five or six miles, as

we would have to do, when something can be had right at home practically just as good. C. P. REYNOLDS.

For the Michigan Farmer.

WINTER BUTTER AND YELLOW MANGELS.

Up to February 1st of the past winter, the cows of our farm, upon cornstalk fodder and a ration of Golden Tankard mangels twice a day, made butter only a shade less yellow and sweet than June and September butter.

At the above date buckwheat middlings and bran were substituted for one of the root feeds, with sugar beets for the other, and the butter lost color and flavor at once. LAPEER Co., Mich. JANE L. CHAPIN.

For the Michigan Farmer.

ANOTHER GOOD COW.

Noticing in the FARMER from time to time the record of some dairy herds, I give the following concerning my one cow:

Time of calving, February 16, 1897. Gives 38 to 39 lbs. of milk per day. We set the milk in pans.

In 28 days from the time we commenced to save the milk, we made 63½ lbs. of butter. Our cow is six years old. She is a grade Shorthorn. Weight, 1,350 pounds. LENA Co., Mich. GEORGE DICKERSON.

[Good enough.—Ed.]

For the Michigan Farmer.

COLD AIR VS COLD WATER.

Mrs. H. R. asks you how to prevent the particles of cream in her butter, and I saw your answer, but we have an easier way. We set in water in summer, but when cold weather comes we set the cans on the west stoop. The cream will raise as quickly as in the tank in summer, but be careful not to let it freeze before setting inside the house in a cool place. WM. H. WHITE.

[Your plan can be followed, if pains are constantly taken to see that no damage is done by freezing. But the cold, deep setting is preferable, the whole year round, in our opinion.—Ed.]

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No deviation from above rates.

DETROIT, SATURDAY, APRIL 24, 1897.

This paper is entered at the Detroit Postoffice as second class matter.

TO CORRESPONDENTS.

For the purpose of preventing mistakes, and to facilitate the answering of questions promptly, we make the following suggestions to our correspondents. Correspondence relating to farm practice and the dairy should be sent to J. H. Brown, Climax; all correspondence relating to farmers' clubs should go to A. C. Bird, Highland; matter relating to the Grange should be sent to Kenyon L. Butterfield, Lansing. Each of the parties referred to have the conduct of the departments named. All other correspondence, on such subjects as horticulture, live stock, poultry, markets and public affairs should be sent directly to this office. By this means the delays caused by re-mailing matter intended for the several departments will be avoided, and the chances for errors materially decreased.

A REPORT from Washington says that Secretary Wilson is engaged in distributing beet seeds to be tried by the farmers of the country in order to see if their lands are adapted for growing beets containing a sufficient percentage of saccharine matter to make the industry profitable for them. Henry T. Oxnard, the beet sugar man of Nebraska, has presented over half the quantity of beet seeds on hand to the department for distribution for trial. The remainder was purchased by the department. All the seed is imported stock, and the entire amount is about five tons, each farmer getting from one to two pounds. Quantities of seed have been sent to the experiment stations in many of the States, and applicants in other States are getting seeds direct from the department. The department does not recommend the planting of the seed in hilly or rocky soil, and suggests a light, sandy and fairly rich loam as suitable. As a rule, it is not believed that the warm climates will be favorable to the growth of the beet. Farmers are recommended to take 25 pounds of the grown beets and send them to their experiment stations for test. If they yield more than 12 per cent of sugar, their cultivation will be regarded as profitable; otherwise not. This work of experiment is largely for the purpose of ascertaining in what localities it will be profitable to locate beet sugar factories. After the factories shall have been established, the further development of the culture of the beet among the farmers will follow as a matter of course—as to their best mode of production, fertilization, etc. In these matters, the experiments of the experiment stations will be of great benefit. The outlook is extremely interesting and hopeful. Not only will the establishment of this industry bring profit to the farmer directly from the sale of beets, but many thousands, if not millions, of dollars

will be expended in labor and construction of the great plants required for the extraction of the sugar. The farmers living in the vicinity of any of these plants will have the advantage of an increased market for their other products by reason of the large number of hands employed.

THE OUTLOOK FOR WOOL.

For the first spring in four years there is a prospect for improvement in wool values. This improvement is not likely to occur at present, not perhaps for some months, and for good and sufficient reasons. The first reason is that the proposed tariff bill is not yet a law, and higher values as the result of its enactment cannot be counted upon until it is put in force. The second reason, and it is by far the strongest, is that importers and manufacturers are bringing in such vast amounts of foreign wool that nearly a year must elapse before our wool-growers receive the full benefit of the duties levied upon it in the price they receive for their clips. The statements of the Boston *Commercial Bulletin* of Saturday last upon this point are sufficient to show the basis for this belief. It says:

"The receipts of foreign wool from Rosario, Buenos Ayers, Liverpool, London and the Cape of Good Hope have been enormous. Probably no week has ever seen such large receipts of foreign wool. Much of this wool was approved immediately upon arrival, swelling the sales apparently to large proportions. Really there has been little new business done this week. The sales of domestic wool are particularly small. Stocks of domestic are, however, limited and all prices are firmly held. At the price now being paid in the territories and California, new clip fine western wool costs, landed here without a profit, 35c to 40c. This is a very full quotation on wool now on hand here."

Of course wool has made some advance in the East and also in the Southwest, where shearing is either in progress or has been concluded. But the advance is not more than one or two cents over those paid last fall.

In this State those who have sheared and sold their clips have received 10@11c for fine unwashed, and 12@13c for cross-breds and Down wools. These prices may have been increased in special cases, where the clips were clean and bright and well conditioned.

The question many wool-growers will naturally ask is, shall we sell or hold? That must depend upon circumstances. If the tariff bill becomes law, with certain clauses changed before it is enacted, we look for an advance of fully 8 cents from the line of present valuation. In fact it may go beyond this, as the shortage in the clip from what it was four years ago, will be felt strongly once the immense imports of foreign have gone into consumption, and the demand for woolsens has reached a normal condition. But it will take eight months probably to reach this point. How many can afford to hold on?

Where the wool-grower is able to do so, we believe the final result will net him a good profit. Where he is not, we think his best plan is to sell just as soon as he gets a good offer, and then start on the work of increasing and improving his flock so that the clip of '98 will be not only larger but better than that of '97. It will be necessary to add 50 per cent to our present wool clip to meet the requirements of manufacturers once the flood of foreign wools is reduced in volume, and this fact is one of much encouragement to the future of this great national industry.

THAT FREE SEED DISTRIBUTION.

The correspondent who discusses the free seed distribution in another column, and incidentally criticises the position taken by the FARMER on the subject, is not a close reasoner. He makes several bad comparisons. For instance, he says if it is wrong for the government to give free seeds to farmers it is also wrong for farmers to give their neighbors seeds at the market price. When a farmer raises a crop he owns it, and has a right to sell or give it away as he chooses. But the government does not own any seed. It takes the money collected from the people, buys seeds, and gives them to a few. It might, with equal justice, distribute postage stamps, or divide the money spent for seeds among a few beneficiaries.

He praises the system of getting the seeds through the lowest bidder, because he thinks that new and choice varieties will be received by some farmers free of cost, and thus prevent seedsmen selling them at

high prices. If he would consider the matter candidly he would see that new and valuable sorts are costly because they are controlled by one or two individuals or firms. The government cannot get bids on such varieties except from those who control them, so it is compelled, in asking for bids, to confine them to standard sorts which can be furnished by all seedsmen. The new system of buying from the lowest bidder takes away from the department any opportunity to secure new varieties, yet our correspondent thinks it an excellent thing.

Then he places money appropriated for public buildings and harbors on a level with that expended for seeds. A public building or harbor is for the use of the public; the right to use them is not confined to a few favorites or acquaintances. All the people have equal rights to their use. Does our correspondent see the difference?

As to the varieties sent out being the best in the "seed curriculum" we cannot say. We do not have one in this office, never saw one; and, although it may be a confession of ignorance, never heard of one before our correspondent mentioned it. We wouldn't know a seed curriculum from a bicycle, so we shall not dispute our correspondent on that point. Perhaps the agricultural department may decide to distribute them free, and when it does we shall make early application for one.

As the writer of this, over 20 years ago, had the privilege of seeing the workings of this free seed distribution, acting for one of Michigan's senators who wished the seeds to go to as many farmers as possible who would care for them, he had an opportunity of studying the system, and he concluded then, and has learned nothing since to change his opinion, that it was a complete humbug, inherently unjust, and could be used by congressmen to advance their political fortunes at the expense of the public among those they chose as their beneficiaries.

We shall not undertake to defend seedsmen against the charges of dishonesty made by our correspondent. Like every other business, among those engaged in it are some who are guilty of sharp practices, and others whose reputation for honesty and integrity is as high as any class of citizens in the land. If our correspondent does business with the latter class he will never be defrauded in any particular, either as to the quality or price of what they sell him. But that has nothing to do with the question at issue. If the dishonesty of some seedsmen is a sufficient reason for the government furnishing seeds free, then the dishonesty of the clothing merchant should be equally as good reason for sending out a few suits of clothing to individuals at the public cost. Or, if the grocer defrauds us, then we are justified in asking for a few free packages of tea or coffee. The weakness of such reasoning will be apparent at once to any thinking man.

A MEETING TO DISCUSS THE WOOL SCHEDULE.

A meeting of a number of parties interested in sheep and wool was held at the Griswold House in this city, on Wednesday last. Those in attendance were A. A. Wood, President of the Merino Sheep-Breeders' Association, Peter Voorhels, ex-President, C. A. Morse, and Robert Gibbons, of the FARMER. The meeting was called to meet with Ex-Gov. Rich, who had just returned from Washington, and desired to confer with some of the sheep men of the State before he returned. Several parties notified could not attend, but gave their views in letters. Mr. Rich reported his experience with Senators and Congressmen, analyzed the wool schedule, and pointed out its inconsistencies and unjust discrimination against the wool-grower and in favor of the manufacturer. Those present were unanimous in condemning the admission of skirted wools at the same duty as unwashed, and the proposition to place an ad valorem instead of a specific duty upon third-class wools. It was a general belief that a lower rate of duty, but one which gave all it promised to the wool-grower, would be more satisfactory than the schedule proposed, which promised much and gave little. The work of the representatives of manufacturers was commented on, and their sharp and dishonest practices condemned. It was decided that when Ex-Gov. Rich returned to Washington he should be accompanied by President Wood, and they should attempt to get a hearing

for the wool interests. Mr. Rich has given a good deal of time to the work of securing better treatment for the wool-growers, and entirely without cost to them. If he succeeds in convincing Congressmen of the iniquitous discriminations in the wool schedule, and that they should be remedied, it will be worth many thousands of dollars annually to the wool-growers of the country.

OPPOSED TO THE GOOD ROADS LAW.

To the Editor of the Michigan Farmer.

One million farmers would be made homeless by the good roads law. Every editor in the United States knows all this good roads literature is written by Mr. Pope, the "bike" manufacturer, and a few others. In the *Detroit Journal* some weeks ago appeared a long letter from Mr. Pope, telling how he had tried Congress, chambers of commerce and boards of trade, and other organizations, but could get no help from them till he wrote to the press, legislators, educators, writers, and all classes of people whose influence he desired to help him in his project to sell wheels. Are we to be taxed to death to enrich Mr. Pope? It cost, in Ohio, to make stone roads, from \$23,000 to \$28,000 per mile. It will average four farmers to the mile—that is \$7,000 for each to pay to help the good roads law.

The MICHIGAN FARMER is noted among the farmers for exposing humbugs. Why don't it kill the good roads law? You can do it in three weeks. SUBSCRIBER.

DEVIL'S LAKE, Mich.

If our correspondent has been a reader of the FARMER for any length of time, he should know that we have steadily opposed any change of the road laws of the State which would take away from the farming community the right to determine what sort of highways they will build. We started to fight the proposed change in the laws when an amendment to the constitution was submitted to the voters several years ago which would place the highways in the hands of a State commission, with power to recommend any expenditures they deemed necessary, and expend the money where they pleased. The FARMER was about the only paper in the State which fought the proposition. It will continue to do so.

It looks to us as if the highways would become less and less important to the business interests of the State from this time forward. The development of electricity, and the extension of trolley lines through the interior, will change travel completely, as well as the transportation of products, and the highway will be relegated to the bicycle and the carriage. To expend thousands of dollars per mile upon roads at present would be bad business policy. The railway did away with the necessity for farmers drawing their products long distances. They now draw to the nearest station, and the railway does the rest. The trolley line will come closer to the farm, and bring the farmer in still closer touch with his markets. The farmers will be very foolish indeed to give up the right of deciding upon what kind of roads they will have, and giving some board or commission that power. They can build and improve their highways to any extent they wish under the present law.

FARMERS in the vicinity of Huntsville, Alabama, have torn down the long-distance telephone wires of the Georgia and Alabama Company. The dispatch announcing this action says: "The farmers cannot understand how a man in Huntsville can speak to another 100 miles away. There has been a slump in cotton and the farmers, being jealous of quotations of their cotton, lay it to the telephone." Perhaps the wires were not strung in the right time of the moon or the signs of the zodiac. The company should be more particular about such matters.

BOOK agents with works on irrigation and the preservation of forests to secure more rainfall, are requested to keep away from Mississippi and Louisiana, as those States seem to have been overworked.

A CASE of much interest to cattlemen is now before the supreme court of this State. It is that of O. W. Shipman, of Detroit, who has brought action to test the right of the Live Stock Sanitary Commission to slaughter cattle suspected of being afflicted with tuberculosis without compensating the owner at the full market value of the animals. Mr. Shipman had a herd of 28 Jerseys killed by order of the Live Stock Commission in August, 1894. The State offered him \$1 per head for the animals slaughtered, but it was refused.

THROAT DISEASES commence with a Cough, Cold or Sore Throat. "Brown's Bronchial Troches" give immediate and sure relief.

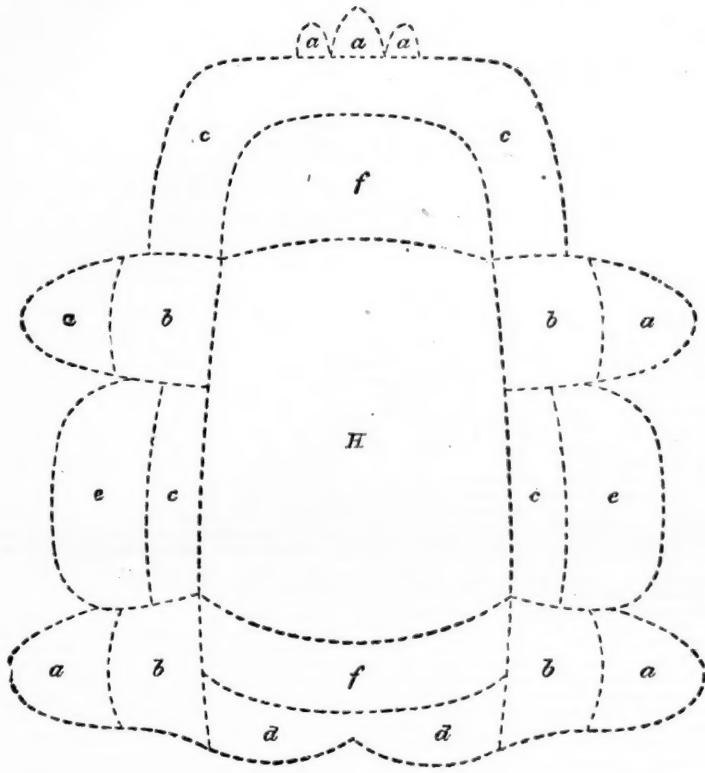
HOW FLEECES ARE "SKIRTED."

The discussions upon the wool schedule in the Dingley tariff bill has brought out some important facts in regard to the importations of foreign wools that have been "skirted;" and the statements made by the representatives of the manufacturing interests have been so much at variance with the facts, that we reproduce an illustration of a whole fleece, with lines showing just what "skirting" means. The sorting, or skirting, is precisely as done in Australia with fleeces intended for shipment abroad.

Skirting, as done in Australia, and to some extent in South America, consists in cutting out of the center of the fleece the most valuable, lightest, and choicest part, equal to about one-half the fleece. The portion marked H in the diagram represents a skirted fleece. The greatest factor in determining the value per pound of a fleece is the percentage of shrinkage, or the loss it will sustain in being scoured. It was found by practical tests that the larger part of this loss was sustained from the extremities or rim of the fleece, so that skirting, which originally consisted in removing only of the

or have had the opportunity to learn much about the grades and characteristics of wool, or its sorting. And, we note with great surprise, that Theodore Justice, who has heretofore been a strong friend of the American wool-grower, has placed himself in line with the manufacturer in this emergency and gravely announced through the columns of several journals and before the committee on ways and means that there is no use placing an extra duty upon skirted fleeces as it could not be collected and that the difference in shrinkage would not amount to more than five per cent. For a man who is an expert in wools, and is named Justice, these are certainly most extraordinary statements, and as false as extraordinary.

The board of regents of the Kansas State university announces the selection of Prof. Thomas E. Will as the new head of the Kansas Agricultural College. He succeeds Prof. Geo. F. Fairchild who has been at the head of the institution for 18 years. Prof. Will is a Harvard graduate who entered the Kansas institution two years ago as professor of economics. The appointment has occasioned considerable surprise, as Prof. Will is reported to be but 30 years of age and a man of new ideas.



a Third pieces.
b Second pieces.
c First pieces, necks and skirts.
d Stained pieces.
e Bellies.
f Broken fleece.

stained portions, was enlarged, so that a portion is now removed from the legs, and a strip around the whole outside of the fleece, which were called "pieces." In the London wool sales the quotation on greasy fleeces means only the skirted fleece, as shown in the portion marked H in the diagram, the balance appearing under the designation of "locks" and "pieces."

It has been asserted by representatives of the manufacturing interests before the Ways and Means committee of the House of Representatives, that there would be no use in levying an extra duty upon skirted fleeces because customs officials could not discriminate between skirted and unskirted fleeces. Beyond the exact weight of a bale of wool we doubt if there is any one fact more readily determined than whether fleeces have been skirted or not. A look at the diagram will show this to be so; but to make it still plainer let any flock owner take two fleeces as they came from the sheep, spread them out carefully, then skirt one in accordance with the lines of the diagram, leave the other untouched, and compare them.

Now, the average skirted Australian fleece only shrinks 48 to 52 per cent, or an average of 50 per cent, in scouring, just what well washed American Merino fleeces shrink. The Dingley bill proposes to levy a duty of 22 cents per lb. on washed fleeces, but only 11 cents on skirted, a clear difference of 11 cents in favor of the latter. Then the bill levies a duty of 22 cents per lb. upon fleeces, "which shall be imported in any other than ordinary condition, or which has been sorted or increased in value by the rejection of any part of the original fleece." This is an acknowledgement of the justice of levying a higher duty upon fleeces sorted to increase their value, yet right below that provision appears the following: "Provided, that skirted wools as imported in 1890 and prior thereto are hereby excepted." This last proviso completely knocks out the first one quoted, so that no matter how a fleece may be sorted to increase its value it will only pay a duty of 11 cents. We believe that the whole of paragraph 355, from which these extracts were taken, was purposely arranged and worded so as to deceive congressmen as to its meaning, as few of them are practical wool-growers,

ANOTHER "FREE SEED DISTRIBUTION."

To the Editor of the Michigan Farmer.

A new interest indeed has been made to the public, especially the farmers of Michigan, after reading the article in the issue of April 30, MICHIGAN FARMER, in which it denounces the distribution of seeds to the farmers as "unjust, unnecessary, partial and the means of securing votes."

That such an idea should be advanced by anyone in his right mind seems erroneous. This article goes on to say that "this distribution deprives citizens from engaging in a respectable business." If that is the case we would think that these prosperous seed firms would not be in such a thriving condition. Does it seem to you, readers of the FARMER, that a distribution of a few packages of seeds in a neighborhood is an infringement on the rights of any seed firm? If that is the case, the honest farmer will not furnish his neighbor with seed wheat or seed potatoes at the market price, but will sell those articles by the quart or peck as quoted in the seed catalog. As far as doing a reputable business is concerned the farmers of Michigan have tested the honesty of certain seed firms in the last year through the contract beans, in which they received prices ranging from 20 to 80 cents per bushel for hand-picked beans which these same seed firms will retail at from \$3.50 to \$4 per bushel. Call that a reputable business?

The article says further that "railroads, postoffices, and seed firms are all over our land"; but it does not add that when these seed firms get a new variety of seeds they charge the farmer two prices for them until they are distributed throughout the country.

Now would it not be an advantage to the farmer to get these new and choice seeds at their actual cost as we have been getting them under the present system of seed distribution? The contracts, as the article states, are let to the lowest bidder; the seeds are raised and distributed with the least possible expense. Nor is it a scheme to make money by a few men directly engaged

in the seed distribution, nor is it the means of securing the farmers' votes.

When our Congress sees fit to make an appropriation of public money for some harbor, public building, or something of that sort, it is pronounced a fine thing; but when a provision is made for the distribution of a few choice seeds to the farmers at comparatively no expense, it is "an unjust thing" and "an infringement upon the rights of others."

The article says "there is not a single reason why we should favor a few at the expense of others." In the first place, the distribution of seeds does not favor a few at the expense of others. All farmers are benefited by this. Where is there a farmer who, having raised a small crop from these seeds, would not share these seeds the next year with his neighbor at little or no profit? These seeds are the very best varieties that are in the seed curriculum, and with them are sent blanks with the request that a report be forwarded to the Department of Agriculture of the results regarding their growth, productiveness, etc., by which a decision is reached as to the best varieties from a scientific standpoint.

The article in closing says "mighty small and mean is the man who wishes to retain such spoils and distribute them." We are sorry that the farmers of the United States are such an inferior class of people as to be bribed by a few packages of seeds, and a newspaper that would advocate such ideas has our deepest sympathy on the principle of where little is given but little is expected in return.

CLINTON CO.

NEWS SUMMARY.

Michigan

Vollinia township, Cass Co., will pay a bounty the coming year of twenty cents each for dead owls.

Reports from Oakland county state that, in spite of the cold, wet spring, grasshoppers are already appearing in great numbers.

The city council of Escanaba has cut the salaries of the city officers, also of its firemen and policemen, sufficiently to reduce to city's pay roll for this year by about \$2,700.

The Lansing common council passed a resolution providing for the purchase of a number of Abbott voting machines for use in that city, but the mayor vetoed it on the grounds that the machines are too expensive.

Bernard Goode, of Detroit, who was chief of the dead letter office at Washington during the last administration, has been removed and Paul Leibhardt, a former occupant of the position, appointed to the place.

The demand for sugar beet seed has been so great that the supply obtained by the Agricultural College has been exhausted and farmers are now purchasing of seedsmen in quantities sufficient for sowing experimental plots.

The large mill dam at Pinckney gave way on Monday morning, the water in the lake back of it having risen higher than before known in 30 years. Six bridges were carried away and fences and other property destroyed.

The village of Bloomingdale, Van Buren county, was nearly wiped out by fire last Wednesday morning. The village was without fire protection. Eight business houses were destroyed, only two being saved from the flames.

From meager reports at hand it appears that the heavy frost of last Monday night did comparatively little damage in the fruit districts, as the buds as a rule were not far advanced. Early blackberries are believed to be injured to some extent.

General

Congressman S. L. Milliken, of Maine, died in Washington, Sunday evening.

The most authentic reports now indicate that the losses of western cattlemen, because of the severity of the past winter, will not exceed 15 per cent.

Joseph Dunlop, the editor of the Chicago Dispatch who was convicted of sending obscene literature through the mails, is reported to be in very bad health and a strong effort is being made to have President McKinley commute his sentence.

High waters in the Mississippi valley are still causing much anxiety. Breaks in the levees are of daily occurrence, and as a result large areas have been entirely deserted, live stock and other movable possessions having been transported to places of safety. The relief measures already voted are proving inadequate.

The body of Gen. Grant was last week removed from its temporary vault and placed in the splendid mausoleum which is to be dedicated next Tuesday. President McKinley and other dignitaries will attend the dedication. The President will review the parade and also deliver an address.

A bill has been introduced into Congress for the repeal of the act which calls for an international monetary conference. Mr. Lewis, Democratic representative from Washington, who is the author of the bill, says his object is to prevent the expense of a commission which he believes will accomplish nothing.

Foreign

The actual opening of hostilities between Turkey and Greece, which has been expected for some months, occurred near the close of last week. The great powers have endeavored to avert war, but Greece refused to be restrained or advised. Turkey

issued a formal note protesting against the occupation of Crete by Greek troops. No attention being given to the protest, Turkey simply announced that the aggression of Greece had precipitated war, broke off her diplomatic relations and ordered her troops in Macedonia to advance. Hostilities began last Saturday when a Turkish fort fired on a Greek transport, and the Greek war vessels were at once ordered to attack the enemy. The main struggle will occur on the Macedonian frontier. It appears to be the plan of the Turks to drive the Greeks from the passes, overwhelm them with superior numbers and push on rapidly to Athens to dictate terms of peace. While the Greeks are greatly outnumbered, it is reported that the passes are not difficult to defend. However, the first few onslaughts of the Turks appear to have been successful, but the subsequent capture of several forts by the Greeks has to some extent counteracted the effect of their defeats at the passes. The fortunes of war so far appear pretty evenly divided, but latest advices indicate that the Greek land forces are co-operating with the naval forces in a way which makes their chances of success for the immediate future look brighter than those of their more numerous adversaries.

Anything in the line of economy appeals to the farmer, and an article that can be used for a hundred different purposes ought to be investigated.

That article seems to be *Neponset Waterproof Red Rope Fabric*, which can be used for covering roofs, sides, and walls of houses, barns, hen-houses, green-houses, hotbeds, haystacks, wagon covers, etc. It is water-proof, wind-proof, and frost-proof. It takes the place of back plaster in dwelling-houses and clapboards and shingles on outhouses; insures warmth and dryness wherever used, and is inexpensive.

Neponset Black Building Paper for inside lining is odorless, clean, water-proof, and economical.

Full particulars and samples free. Write F. W. Bird & Son, East Walpole, Mass. For sale by Dealers in Hardware, Lumber, and Building Supplies.

RUPTURE
CURED AT SMALL COST. In Chas. Cluthe's Genuine Truss (pat'd) we change position from hips, spine and bones to the natural cushions of muscles. Ball-bearing pads uses rupture's own force to retain itself. Our book sent free, in plain sealed envelope. CHAS. CLUTHE CO., 213 Woodward Av., DETROIT, MICH.

Cream Separating at Home.

Roads are pretty muddy these days, and where you have a two-mile drive to a creamery that means twenty-eight miles per week through the thick mud.

A LITTLE GIANT Cream Separator

in your dairy means that you can save this twenty-eight miles and the time it takes to drive it.

P. M. SHARPLES, West Chester, Pa. Elgin, Ill. Rutland, Vt.

SEND 40 CENTS FOR OUR

Electric Bug Killer

For Potato Bugs, Currant Worms, etc. Guaranteed. Money refunded if not satisfactory.

JOSEPH J. CHURCHYARD, Buffalo, N. Y.

Success Beardless Barley.

A new six rowed beardless Barley—the earliest, most productive, strictly beardless, a strong grower and will not lodge even when grown on low rich land heavily manured. As a substitute for oats the Success has no equal, as it will yield more, is better for feeding and is a sure crop, even on heavy soil where oats would be a total failure. Give the Success a trial and you will not regret it. Price, 50c. per peck, or \$1 per bushel; in lots of 5 or 10 bushels, 75c. per bushel. Early Learning Seed Corn. Large yellow deep grain, small cob, very early and an enormous yield. Price, 50c. per peck or \$1 per bushel; in 5 or 10 bushel lots, 30c. E. B. CRIGHTON, Lenawee Co., Tecumseh, Mich.

SHORT STOPS.

FANNIE, writes:—I am a constant and devoted reader of the Household. I think it helps farmers' daughters as well as farmers' wives. I noticed this week that information was wanted on how to keep butter bowls from cracking. I have seen my mother use linsed oil, taking the bowl when it was new and applying the oil with a brush until it began to glaze, showing that the bowl was soaked full. She usually chose a very warm day, taking it out on the clothes-reel platform and leaving it in the sun till it was dry. It makes them a nice color, easy to keep clean, and they never crack. We served our chopping bowls the same way and have had them a long time and they are just as nice as new. Give the bowls a good bath of hot water and soap before using.

[Another contributor writes that soaking the bowls full of hot lard before they have been wet will prevent their cracking. Give them a thorough washing afterward.]

MARY ANN, writes:—How shall I begin my first letter to the Household? Guess I'll say "Dear Editor," for you have been a friend to me as well as to many others.

In this department of March 6, I was much pleased with the advice given to farmers about getting the woodpile in readiness for the cook, and now while the man on this ranch is drawing his last load for the year I am practicing what Hope Darling advises about changing our men, at least I will be honest enough to admit that I needed such advice. Instead of fried pork and "biled 'taters" we will have baked potatoes, fried ham and a luscious cup of coffee.

This morning when I did up the work I took the "hint" from our "Household Hints" and moistened the stove blacking with soapsuds, adding a few drops of molasses. I shall also use inner soap wrappers to wipe flatirons on and get borax for the starch. All this I found in one issue of the FARMER.

But I am much interested in those articles which tell about the care of small children. I hope all wives and mothers will be benefited and strengthened for the noble work of bringing up their children. This needs careful, prayerful consideration. I wish all wives would read again and again the advice given them by Kate Silverpen in the Household of March 13.

LINA L. W., writes:—I do not agree with the editor in her decision in regard to M. E. S. C.'s attending church. To my mind it is the duty of every person to consecrate a portion of their time to religious services, and if everybody were to give up as easily as did this lady there would be very few churches. The Bible says woman was made for man, but it does not say she is to be his slave, consequently it is her right to attend church if she wishes to, and if a man would rather eat bread and milk than to get the dinner cooking, why not let him do so? It would certainly be good for his digestion.

By giving up she could never hope to bring her husband to Christ, and to my mind she has made a big mistake, but I hope she will not find it too late to remedy it.

WORK FOR NIMBLE FINGERS.

FIVE O'CLOCK TEA APRONS.

These aprons are made of China silk or very thin white muslin. One made of the very thinnest white muslin, trimmed with lace and ribbon, is very handsome. This apron is made long enough to reach the knee of the wearer, and is rounded a little at the corners, and just the least fullness at the waist. It is twenty-two inches wide. All around the apron is a full ruffle of white lace two and a half inches wide. Over this ruffle is a heading of narrow lace three-quarters of an inch wide. This is not so full as the wide lace. The waist band is muslin, one and a half inches wide, and through it is drawn a ribbon of the same width, a pretty shade of pink. This is fastened at the back under a full bow of the ribbon, with six loops and as many ends. A piece goes over each shoulder, fastened to the belt at back and front. These shoulder pieces are put on the front five inches apart; same at the back. On the top of each shoulder the pieces are a little pointed. These pieces are two inches wide. The outer edges are trimmed same as the apron, and the inside edge has two rows of the narrow lace. On each shoulder, at the point, is a full bow of the pink ribbon. There are two pockets on the apron, half circle in shape, three and a half inches across the top. At the very bottom of each pocket is a bow, same as on shoulders. Across the top is a ruffle of deep lace with a heading same as around the apron. This lace falls partly over the bow. These aprons are something new, to be worn at afternoon teas. They are very pretty when made of either white or cream-colored China silk and trimmed as above described.

PORCH CUSHIONS.

Porch cushions have already made their appearance in the show windows. One window was entirely filled with them. These were all made the same shape and size but all different colors.

The material is cotton in inch-wide stripes, two colors in each cushion. Green and yellow, blue and black, pink and black, red and green, green and black; the prettiest of all was black and red—a very bright red. I cannot tell half the colors, there was such a variety.

The cushions are half a yard square, both sides alike. A double ruffle five inches deep (after being doubled) is cut

lengthwise of the goods so that the stripes go round the cushion. The ruffle is quite full, and stitched in with the seams of the covers.

SOFA CUSHIONS.

A pretty cushion is of olive green denim, eighteen inches square, filled very full of cotton batting. There is nothing around the edge, just the seam that holds it together. One side is plain, for the top, and is trimmed with lamp-wicking, two rows of this being used for a border. The outside wick is one and a half inches wide, put on one and a half inches from the edge of the cushion. This row is crossed at the four corners, and each end extends three inches beyond the cushion corners; these ends are cut slanting to one side so that the long point is towards the cushion corners. Both edges of this wick are done all around in feather-stitching with bright red embroidery cotton. The ends that project at the corners are not embroidered. Inside of this row and one inch from it apart is a row of one-inch lamp-wick. This is crossed at the corners and the ends just catch under the outside row. This row is done with feather-stitch, same as the other, letting the stitching extend the full length of each side. On this row where the wick crosses at the corners is done a pattern like the spokes of a wheel, in long stitches reaching almost to the edge of the wick, using the red cotton.

This is a very odd cushion, and is quite pretty. It is very easily made, and the material is not expensive.

I should think the cover might be made of any dark color or material. ILKA.

SPRINGTIME THOUGHTS.

Spring is with us again, reminding us that house-cleaning is near at hand, and in addition to this the inevitable hired man. It means a great deal to the housekeeper who already has a good-sized family to do for. It means one more to cook for, another bed to care for, and an addition to the work all around. To my mind this is one serious drawback to life on a farm. But as it cannot be avoided one must make the best of it. But one thing we can do, and that is to call a halt when it comes to washing for them. Not because they are hired men, but because the average farmer's wife has enough to do without taking in washing. I had always made a practice of doing the hired man's washing until a few years ago, when, with two small children to wash for, one a baby, and a fine shirt to iron for the hired man every week, to say nothing of the rest of his washing, I quietly informed my husband that he would have to make different arrangements about washing when he hired men in the future. He said "all right," he didn't blame me for feeling as I did about it.

I heard two farmer friends discussing this very question a short time ago—how much it was worth to wash for a hired man. They finally came to the conclusion that it was worth the great big sum of one dollar per month to wash, iron and mend for the hired man. At that very time it was impossible to hire a man for any less than one dollar per day and board. I for one fail to see why a man's time is worth so much more than a woman's.

Another job that I have stricken from my list is bag mending. I believe this is a man's work. There are generally rainy days enough, and if not there are the evenings. This may seem hard at first, but they will soon become accustomed to it. The bags may not hold as much as if you mended them, but they will pass muster somehow. L. N. H.

[The bags would undoubtedly be more carefully used if L. N. H.'s rule were in force. We long ago drew the line at white shirts for hired men, and our own, too. They go to the laundry along with the cuffs and collars.—ED.]

SCHOOLS AND TEACHERS.

I wish all school boards before hiring teachers would stop and think what the State Normal is for; and its graduates. What is the use of sending our boys and girls to work so very hard to make first-class teachers of themselves, and then to apply for schools and find the positions filled with teachers that have never had any Normal training?

I wish that a member of the school board who is a good judge of human nature would visit the State Normal, at Ypsilanti, a few days, and select teachers for the grades he wishes them to teach. Go into the room where they are teaching and closely observe their work. Note closely if the students like them, and especially if they keep good order. Also see if they are neat in their dress, and when you feel as if you had made a good selection, ask Miss King what she thinks about it; she has been in the school a good many years.

If we could have teachers from the Normal in the district schools and get the schools graded in better shape it would be such a help.

I don't believe in filling up schools with students just graduated from our graded schools. If a boy or girl has the vim in them to go through a hard course in the Normal, and wish to make teaching a business, then we want men on the school boards that know what it costs and means to send our children there.

To be a successful teacher, and especially in the lower grades, one must like children. Remember teachers are born, not made. JOE.

A TALE OF THE TOMATO.

PART FIRST.

About the middle of February, 1896, a certain reader of the MICHIGAN FARMER was inspired to see what she could do in the way of early tomatoes.

Securing a package of seed of the Ignatum, Early Advance, and Early Michigan she carefully sowed some of each variety in little drills across a three-pint basin of earth and placed in a south window. The seedlings came up in due time. They were sturdy, of a deep, rich color and soon attained the dignity of a third leaf.

Foreseeing the needs of this period, our heroine had invested some of her limited capital in four-inch pots, and had stored a supply of good soil in the cellar. Spreading all these out on the oilcloth cover of her dining table, she had an hour or two of solid comfort in transplanting twenty of the best plants. Then she rigged up some shelves across the east window of her pantry and kept them there, except on dangerously cold nights, when they were moved to a place of safety, but never put near the fire. They soon demanded larger dishes. These were supplied, and as soon as the weather would permit it, they were kept on the south porch. Their owner had in her day scored some successful points in the way of house plants, but she was never so proud of anything as of these tomato plants. They were so sturdy, of such a rich color, and grew just as if they didn't want to do anything else. The few friends who visited her secluded home, saw, admired, and vainly attempted to buy or beg a sample or two. She scorned their nickels, and stealed her heart against friendship's pleas.

The spring came on beautifully, and seemed to our infatuated heroine to be made expressly for her tomato plants. Some had bloomed and showed embryo fruit, when, after solemn discussion with her life partner and companion in agriculture, the first six were tenderly slipped into the bosom of the earth in the center of a very carefully prepared garden, which, sloping gently to the east, wooded the morning sun and, made up of a mixture of rich muck and sand, promised great things. During one or two cool nights they were sheltered from the frost by the many-purpose crate. The dews baptized them; the sun kissed them; the atmosphere yielded to them its 97 per cent of nutrition, and all went well.

PART SECOND.

(Pull out the tremolo stop.)

One morning a wind came up from the west. A strong, hot wind, more like the simoon of the desert than anything ever before known in Michigan. While the people whose harvest depended upon conditions of soil and weather sat within churches giving thanks for the wondrous promise of the season, that wind was busy blowing crops out of the ground, blowing the ground away from them, parching to a crisp what remained, blighting early fruit and overturning weak trees.

Next day while her partner bemoaned the loss of acres of onions our heroine pulled up the torn, brown remains of her fair tomatoes and threw them away. A few lines of Longfellow's "Excelsior" chanted themselves to her mind as she sadly climbed the fence and wended her way back to kitchen duties. Thus encouraged, she soon set out the six plants next in size and advancement to those destroyed.

These came on nicely until May 25th,

when!! Well, a tornado with the heart to pick feathers from an innocent chicken, the strength to tear down strong buildings, and the eccentricity to carry sundry pictures and papers forty miles, could hardly be expected to spare a tomato plant, no matter how nice or how heavily fraught with woman's hope. A stump of a stalk about an inch above the ground was their only monument. On this occasion even poetry failed to renew courage, but just to get them out of the way, the few plants that had remained under shelter of the porch were, after a time, set out. On July 10th our heroine picked ripe fruit from these and consoled herself by extricating from ruined hopes and frustrated attempts this proof that her theory was all right, that early planting and a steady growth, secured by several transplantings, will produce early tomatoes. A. H. J.

CONTRIBUTED RECIPES.

PUFFS:—One cup of milk, two eggs well beaten, scant teaspoon of salt and one cup of flour. Put this all into a bowl and beat for five minutes. Bake in a quick oven in muffin rings.

CREAM FOR PUFFS:—One-half pint of milk, one cup of sugar, one-half cup of flour, two eggs. Stir the flour in a little milk and put the rest of the milk on the stove. When hot, stir in the sugar and eggs beaten together with the flour, cook until thick, flavor with vanilla; when both this and puffs are cool open top of puffs and fill with the cream. This makes one dozen.

FIG FILLING:—Chop one pound of figs finely, add a small cup of water and one of sugar. Cook ten minutes, stirring all the while to prevent burning. Cool and spread between layers of cake with frosting flavored with vanilla.

RIBBON CAKE:—Take one cup sugar, one-half cup of butter, one-half cup of sweet milk, three eggs and two teaspoons baking powder. Beat thoroughly, divide into three parts and to one add one tablespoon of molasses, one teaspoon each of cloves, cinnamon and nutmeg. Bake in three layers and put the dark between the two white layers, placing sufficient icing or jelly between. MRS. G. R. S. □

GRANOLA PUDDING:—Heat three pints milk to boiling and pour it over one cup of granola (to be had at any grocery). Let it stand until nearly cold, then add two beaten eggs, and sugar to taste. Bake for half or three-quarters of an hour, or until done. Flavor as desired.

The granola comes in pound packages, and is excellent used in many ways. Eaten cold in milk it is delicious and is prepared especially as a healthy article of food. A. B. C.

HOUSEHOLD HINTS.

If the sink drain smells badly, dissolve washing soda or copperas in hot water and pour down the pipe. Do this once a week, anyway.

It is said that carpets will not be disturbed by buffalo bugs if the floors are well scrubbed with hot water in which half a pint of turpentine has been mixed for each pailful.

Do not wear out the tips of silver spoons by using them to beat eggs, cake, etc. It ruins the shape, making them very unsightly. A wooden spoon is preferable. If an iron one is used be sure that the tin is not worn off.

THREE HAPPY WOMEN.

Each Relieved of Periodic Pain and Backache. A Trio of Fervent Letters.

Before using Lydia E. Pinkham's Vegetable Compound, my health was gradually being undermined. I suffered untold agony from painful menstruation, backache, pain on top of my head and ovarian trouble. I concluded to try Mrs. Pinkham's Compound, and found that it was all any woman needs who suffers with painful monthly periods. It entirely cured me. MRS. GEORGE WASS, 923 Bank St., Cincinnati, O.

For years I had suffered with painful menstruation every month. At the beginning of menstruation it was impossible for me to form more than five minutes, I felt so miserable a little book of Mrs. Pinkham's was house, and I sat right down and read it. of Lydia E. Pinkham's Vegetable Compound. I can heartily say that to-day I woman; my monthly suffering is a thing shall always praise the Vegetable Compound done for me. MRS. MARGARET ANDERSON, 363 Lisbon St., Lewiston, Me.



stand up erable. One thrown into my I then got some pound and Liver feel like a new of the past. I for what it has

Lydia E. Pinkham's Vegetable Compound has cured me of painful menstruation and backache. The pain in my back was dreadful, and the agony I suffered during menstruation nearly drove me wild.

Now this is all over, thanks to Mrs. Pinkham's medicine and advice.—MRS. CARRIE V. WILLIAMS, South Mills, N. C.

The great volume of testimony proves conclusively that Lydia E. Pinkham's Vegetable Compound is a safe, sure and almost infallible remedy in cases of irregularity, suppressed, excessive or painful monthly periods.

Legal Department.

CONDUCTED BY EARL D. BABST
56 Moffat Building, Detroit.

H. G. R., Rose, Mich.:—Your question is not stated with sufficient detail. Do you refer to a highway tax?

EFFECT OF BILL OF SALE.—SUBSCRIBER, Cedar Springs, Mich.:—B. has two children, A. and D. B. gives D. a bill of sale of all his personal property five years ago. Can D. hold that property? How long will a bill of sale hold good?—A sale is an absolute transfer of title in property forever, and a bill of sale is simply evidence of such transfer.

TAX TITLE.—SUBSCRIBER, Lapeer, Mich.:—A. bids off a piece of land at the annual tax sale of 1887 and receives a deed in 1889. He enters the land and cuts and removes timber from year to year, but pays no taxes. Land is timber land and not enclosed. A. continues to occupy the land. Can A. hold possession in a suit at law?—Anyone having bought the land for taxes since 1889, and having received a tax deed, would have a better title than A. and could sue him in ejectment.

ENTERING PREMISES OF ANOTHER.—SUBSCRIBER, Howell, Mich.:—A. rents a house and barn to B., who moves out in A's debt, but leaves a pair of bobsleighs in the barn without saying anything to A. about them. B. has only what the law allows him. Nine months later A. locks the barn. Soon after, B. pulls the sleighs and takes away the sleighs. Did B. lay himself liable? What can A. do about it?—Maintain an action against B. for trespass of land. B. would be liable in damages.

CIVIL DEATH.—S. C., Grand Lodge, Mich.:—B. married a wife 25 years ago, supposed to be a widow. It now turns out that her former husband is living. No divorce. Will the marriage with B. be null and void? Has she any right of property?—The marriage with B. will be null and void unless for five years previous to marriage the husband of widow was continually out of the country, and diligent inquiry from all persons who would probably have heard of him if living, has failed to show him to be living. In such case he is presumed to be dead, and marriage with B. would be legal. The right of property will depend entirely on legality of second marriage. Many facts may exist which would change the relations of all the parties, and the utmost care should be taken to ascertain your legal status.

MOVING BUILDING ALONG HIGHWAY.—LIABILITY IN CASE OF DAMAGE.—N. J., Stanton, Mich.:—I want to move a building along the highway about two miles. Should I get a permit from the highway commissioner first? If an accident occurs to anyone traveling along the road, caused by said building, does the law make me responsible if I use reasonable care in trying to prevent such?—Would advise you to obtain written permission from commissioner. The question as to liability for damages in such a case as above has never been determined by our courts. Moving buildings from one place to another is of such frequent practice that it must be considered to be established as a legitimate economy, and the use of the highway for such a purpose to be a lawful use. You would be responsible, however, for any accident which occurred through your negligence. At night leave plenty of room for travel, and place red lights as a warning of the danger.

UNRECORDED DEED GOOD BETWEEN PARTIES AND OTHERS WITH NOTICE.—NOT EFFECTIVE AGAINST INNOCENT PURCHASERS.—ENTRANCE TO SOLDIERS' HOME.—SUBSCRIBER, Emmet Co., Mich.:—1. If B. buys land of A. and neglects to get his deed recorded before A's death, cannot B. hold the land? Will not a deed hold land as well without being recorded as if it were on record?—As between the original parties to a deed it will hold good whether it be recorded or not, but should the land be sold to an innocent purchaser for value, who recorded his deed, such third party's title would be good. 2. Do they take soldiers at the Grand Rapids Home who enlisted in other states, but have lived in Michigan for 20 years, or only those who enlisted in Michigan?—To be admitted to the Home one must have been a soldier or sailor of the United States in the Mexican war or the war of the Rebellion; must be disabled by disease, wounds or otherwise; must have no adequate means of support; must have served in a Michigan regiment, or have lived in the State since June 5, 1884. As you state the case it would seem that if the disabilities above mentioned are present, the soldier referred to is eligible. The proper course to pursue is to apply to the board of managers.

ADVERSE POSSESSION.—DEED FROM WIFE TO HUSBAND.—QUIT CLAIM DEED.—HUSBAND LIABLE FOR WIFE'S NECESSARIES.—L. M., Mecosta Co., Mich.:—1. One heir to a piece of property has held adverse possession for fifteen or twenty years. A sister of this heir knew of this possession. Can the sister's children, living in another state, claim a share?—If the possession was actually "adverse possession," i. e., actual, visible, continued, open, notorious and hostile, for a period of fifteen years, the

title could not be attacked by the sister's children. Their place of residence would make no difference in any event. 2. Can a wife deed property to her husband?—Yes, if it is not done in fraud of her creditors. 3. Is a quit claim deed as good as a warranty deed?—A quit claim deed means simply that the person making such deed releases whatever claim he has to the property. This might be only a tax title claim. A person giving a warranty deed, however, warrants the title to be clear and may be sued if there turns out to be a lien against it. 4. Is a husband obliged to pay the debts of his wife?—A husband must provide his wife with necessities. If he does not, she may purchase them on his credit. What are necessities depends on the situation of the husband. Beyond this he is not liable for her debts unless they have been contracted with his express or implied authority.

SCAB—SALE OF SHEEP INFECTED BY—DAMAGES.—SUBSCRIBER, Vernon, Mich.:—A. and B. bought lambs which came through Chicago stock yards. Shipper ten days after sale advised B. to dip the lambs, for sheep coming through Chicago yards, he said, were liable to have scab. Lambs were dipped, but later the scab appeared and A. and B. have lost heavily. Is there a case for damages?—On the facts as stated in your several letters there is no case for damages. Shipper gave no warranty, nor made any representations, nor does it appear that he knew lambs had the scab at the time of sale, nor that they had been directly exposed to it. He merely said, "here are lambs for sale; they have come through Chicago yards." He took no unfair advantage, he withheld no special information. Lambs were open to inspection. A. and B. bought, and failed to take, for some days, what is deemed the usual and ordinary precaution in putting sheep on a farm which have been shipped in, viz., to dip them. The FARMER has always so advised, especially in case of Chicago shipments. Unless there are other facts which will charge with shipper with notice of disease in sheep, or negligence, we are of the opinion that A. and B. must accept their loss, and profit by experience.

The Markets.

WHEAT.

The market got very excited Saturday last as the result of the breaking out of war between Turkey and Greece. The war still goes on, but wheat values are settling back to the point they started from, spot being nearly on a level with the quotations ruling on Thursday of last week. Meanwhile the weather is reported as very unfavorable in the spring wheat states, and sowing has been much delayed by snows, rains and floods. The outlook in the winter wheat states is not as favorable as a month ago. Upon the whole the wheat market should be stronger than it is with present conditions obtaining. But the foreign demand is light, the visible supply does not decrease as fast as expected and operators are keeping close to the shore. Ninety cents still seems to be the dividing line between the bulls and bears, and values have reached that point again.

The following table exhibits the daily closing sales of spot wheat in this market from March 25 to April 22 inclusive:

	No. 1	No. 2	No. 3
Mar. 25	87 1/4	86 1/4	83
" 26	87 1/4	86 1/4	83
" 27	86 1/4	85 1/4	82
" 28	86 1/4	85 1/4	82 1/2
" 29	86 1/4	85 1/4	81 1/2
" 30	85 1/4	84 1/4	81 1/4
April 1	84 1/4	83 1/4	80 1/4
" 2	84 1/4	83 1/4	80 1/4
" 3	84 1/4	83 1/4	80 1/4
" 4	84 1/4	83 1/4	80 1/4
" 5	84 1/4	83 1/4	80 1/4
" 6	84 1/4	83 1/4	80 1/4
" 7	84 1/4	83 1/4	80 1/4
" 8	84 1/4	83 1/4	80 1/4
" 9	84 1/4	83 1/4	80 1/4
" 10	84 1/4	83 1/4	80 1/4
" 11	84 1/4	83 1/4	80 1/4
" 12	84 1/4	83 1/4	80 1/4
" 13	84 1/4	83 1/4	80 1/4
" 14	84 1/4	83 1/4	80 1/4
" 15	84 1/4	83 1/4	80 1/4
" 16	84 1/4	83 1/4	80 1/4
" 17	84 1/4	83 1/4	80 1/4
" 18	84 1/4	83 1/4	80 1/4
" 19	84 1/4	83 1/4	80 1/4
" 20	84 1/4	83 1/4	80 1/4
" 21	84 1/4	83 1/4	80 1/4
" 22	84 1/4	83 1/4	80 1/4

The following is a record of the closing prices on the various deals in futures each day during the past week:

	May	July
Friday	84	77 1/2
Saturday	84	77 1/2
Monday	84	77 1/2
Tuesday	84	77 1/2
Wednesday	84	77 1/2
Thursday	84	77 1/2

The visible supply of wheat on Saturday last, as compiled by the N. Y. Produce Exchange, was 36,979,000 bu., a decrease of 727,000 bu. over the amount reported the previous week.

The growing wheat crop of India promises to be 4,300,000 quarters less than that of 1896 and 10,500,000 quarters less than that of 1895.

France will probably need to import 16,000,000 bu. of wheat to make up the deficit in the present growing crop. Winter wheat there is not looking well.

The Liverpool Corn Trade News claims that the usual millers' weekly consumption of wheat in Great Britain is about 4,600,000 bu., but is now averaging only about 4,000,000 bu.

Rye exporters estimate that by June 1 about 1,000,000 bu. will have cleared from the seaboard. There is about 300,000 bu. afloat at Chicago. New York has 246,000 bu. in store and Duluth 885,000 bu., one-half of which has been sold for export. The 100,000 bu. recently held at Buffalo has been moved to the seaboard and will go out.

Reports from the southern and southwestern governments of Russia regarding wheat are that the condition of the crop is satisfactory. In the black soil regions the outlook for spring wheat is not good.

Spring wheat in the northwest promises to be rather late at the best. If the weather is all that can be hoped for a large acreage is possible to go into the ground in April, but ideal weather comes very seldom that such a result can hardly be expected, and lateness is likely to be a fault of the new crop. Along all the streams, a gorge of ice caused an overflow, and while the land is draining off, too much time will expire before seeding upon

it can be done, to give encouraging prospects. Such lands, last year, did poorly, and they may be expected to do so now.

A Nashville, Ill., dispatch says: "Winter wheat throughout the entire country is almost a total failure, and under most favorable conditions from now until harvest not more than enough for seed will be harvested. All the winter-killed wheat will be replaced by oats, provided it can be done before April 20. There has been a slight rainfall every day for a week and the fields are very wet."

It is estimated that the United Kingdom will require about 3,200,000 bu. foreign wheat weekly during the balance of the crop year.

DAIRY PRODUCTS.

BUTTER.

The market for butter is again lower, and the outlook is not favorable for any improvement. Both dairy and creamery have declined, and low grade stock is dull, slow and neglected. Quotations in this market range as follows: Creamery, 17 1/2 to 18; fancy dairy, 14 1/2 to 15; fair to good dairy, 13 1/2 to 14; low grade, 7 to 10. At Chicago the market is quoted dull and lower. Even at concessions dealers find it difficult to move stocks, and they are accumulating. All grades seem to be in the same condition. Quotations in that market on Thursday were as follows: Creameries—Extras, 16c; firsts, 14 1/2 to 15c; seconds, 12 1/2 to 13c. Dairies—Fancy, 14c; firsts, 12 1/2 to 13c; seconds, 10 1/2 to 11c; imitation creameries, firsts 13 1/2 to 14c; packing stock, fresh, 8 1/2 to 9c; roll butter, choice, 9 1/2 to 10c. The New York market has also declined since a week ago, but has become more active and firmer since the decline. The demand for shipment has improved, dealers purchasing freely. The home demand is also of fair proportions, and without any increase in receipts all that offers will be taken care of at current figures. The policy is to sell freely at present prices to prevent any accumulation of stock in view of the prospective increase of receipts with the advent of more seasonable weather. Quotations in that market on Thursday on new butter were as follows:

Eastern creamery, fancy	16 1/2 to 17
Eastern creamery, good to choice	13 to 16
State dairy, h. f. tubs, fancy, fresh	16
State dairy, h. f. tubs, good to choice	11 to 15
Welch tubs, extras	15 1/2 to 16

WESTERN STOCK.

Creamery, Western, fancy	17
Creamery, Western, choice	16
Creamery, Western, fair to good	13 to 15
Dairy, Western, firsts	11 to 12
" thirds to seconds	8 to 10
Western imitation creamery, choice	14 to 14 1/2
Western imitation creamery, fair to good	10 to 13
Factory, fresh, choice	10 to 11
Factory, fresh, fair to good	8 1/2 to 9

CHEESE.

The cheese market holds very steady for the season, as the result of light stocks and the continuance of unfavorable weather. Quotations are on old cheese, and in this market still range at 11 1/2 to 12 1/2 for the best full creams. At Chicago no new features have appeared during the week, and values are quoted steady, with a quiet market. Quotations in that market on Thursday were as follows: Full creams—Young Americas, 9 1/2 to 11c; twins, 8 1/2 to 10 1/2c; brick, full cream, 7 1/2 to 8 1/2c; Swiss, fair to choice, 5 1/2 to 6 1/2c; Limburger, good to choice, 5 1/2 to 6 1/2c. The New York market is fairly active, and as receipts of new are light, and stocks of old small, it is probable values will hold steady until the new make increases. Old full creams show a fractional decline. The N. Y. Tribune says of the market: "Up to the close of last week there was an active export demand for large full cream, and everything received sold promptly on arrival, with most lots engaged before they came in on the basis of 10 1/2c for choice grades. So far this week the export demand has not been as active, buyers failing to receive responses to their cables, and the market is somewhat unsettled. The high cost in the country and comparatively moderate supplies induced firmness on the part of holders." Quotations on old stock in that market on Thursday were as follows:

Old State, full cream, large, white, fancy	12
Do do late made, prime	11 1/2 to 12
Do do good to choice	11 1/2 to 11 3/4
Do do colored, fancy	12
Do do do late made, prime	11 1/2 to 12
Do do do choice	11 1/2 to 11 3/4
Do do do fair to good	9 to 11
Do do small, fancy, white	12 to 12 1/2
Do do colored, fancy	12 1/2
Do do good to choice	11 1/2 to 11 3/4
Do do common to fair	9 to 11

NEW CHEESE.

Full cream, large choice	10 1/2 to 10 3/4
" " good to prime	10 to 10 1/4
" " small size	10 1/2 to 11
Part skims, good to prime	7 to 8 1/4
Common to fair	4 to 6
Full skims	2 1/2 to 3

At Liverpool on Thursday quotations on finest American cheese were 56s. 6d. per cwt for choice American, both white and colored. These figures are the same as quoted one week ago. The market is reported rather dull.

DETROIT PRODUCE MARKET.

DETROIT, April 22, 1897.

FLOUR.—Quotations on jobbers' lots in barrels are as follows:

Straights	4 50 to 4 55
Clears	4 25
Patent Michigan	4 75 to 4 80
Rye	2 75
Low grade	3 50

CORN.—No. 2, 24c; No. 3, 23 1/2c; No. 2 yellow, 25c; No. 3 yellow, 24 1/2c. The visible supply of corn on Saturday last was 24,108,000 bu., an increase of 864,000 bu. from the previous week.

OATS.—Quoted as follows: No. 2 white, 23c; light mixed, 22 1/2c; No. 3 white, 22c. The visible supply of oats on Saturday last was 13,657,000 bu., a decrease of 370,000 bu. since the previous Saturday.

RYE.—Quoted at 36 1/2c per bushel for No. 2. No. 3 sells at 34c. The visible supply of rye of Saturday last was 3,630,000 bu., a decrease of 12,000 bu. since the previous Saturday.

BARLEY.—Quoted at 56 1/2c per 100 lbs. The visible supply on Saturday last was 3,233,000 bu., an increase of 688,000 bu. since the previous Saturday.

TIMOTHY SEED.—Quoted at \$1.25 per bu. FEED.—Bran, \$1.11; coarse middlings, \$1.11; fine middlings, \$1.20; corn and oat chop, \$1.00; cracked corn, \$1.11; coarse cornmeal, \$1.11. These prices are for car load lots; small lots are \$1 per ton higher.

BUTTER.—Market dull. Quoted at 14 1/2 to 15c for best dairy; good, 13 1/2 to 14c; common to fair, 12 1/2 to 13c; creamery, 17 1/2 to 18c.

CHEESE.—New Michigan full cream, 11 1/2 to 11 3/4c. EGGS.—Strictly fresh selling at 9c per doz.

POTATOES.—Quoted at 20 1/2 to 22c per bu. At Chicago quotations on Thursday were as follows: Early Rose, 15 1/2 to 16c; Hebrons, 16 1/2 to 17c; Burbanks, 17 1/2 to 18c; Michigan 15 1/2 to 16c.

BEANS.—Quoted at 60 1/2 to 65c per bu. for hand picked in car lots; unpicked, 40 1/2 to 55c per bu. At New York

quotations on Thursday were as follows: Marrow per bu., 90c to \$1.10; medium 75c to 85c; pea 75c to 85c; red kidney, \$1.10 to \$1.45; white kidney, choice, \$1.05 to \$1.10. Market dull and weak.

APPLES.—Quoted at \$1.01 to \$1.25 per bbl for common; good to choice, \$1.50 to \$1.75.

DRIED APPLES.—Sun-dried, 20 1/2 to 24c; evaporated, 44 1/2 to 50c per lb.

MAPLE SYRUP.—Quoted at 65 to 70c per gallon for pure.

MAPLE SUGAR.—Quoted at 70c per lb. for Michigan.

HONEY.—Quoted at 10 1/2 to 11c in sections for white and 8 1/2 to 9c for dark comb; extracted, 50 1/2 to 60c per lb. At Chicago it is quoted as follows: White clover, choice, 11 1/2 to 12 1/2c; imperfect comb, 7 to 9c.

BEESWAX.—Prime, 23 1/2 to 24c per lb. HIDES.—Green, No. 1, 6c; No. 2, 5c; cured, No. 1, 7c; No. 2, 6c; calf No. 1, green, 8c; cured No. 1, 8c; No. 2, green, 7c; No. 2 cured calf, 7c.

POULTRY.—Dressed chickens, 9 1/2 to 10c; dressed turkeys, 12 1/2 to 13c; dressed ducks, 12 1/2 to 14c; geese 9c. Live quoted 10c below the above figures.

Quotations at Chicago are: Live—Turkeys, 8c to 9c; chickens, old and young hens, 7c; roosters, 6 1/2 to 7c; ducks, 9 1/2 to 10c; geese, 8 1/2 to 9c per doz.

DRESSED VEAL.—Quoted at 60 1/2 to 64c for ordinary to good carcasses, and 7 1/2 to 7 3/4c for fancy.

PROVISIONS.—Quotations are as follows: Mess pork, 8 1/2 to 9c; short mess, 10 1/2 to 11c; short clear, 9 1/2 to 10c; lard in tierces, 5 1/2 to 6c; compound, 4 1/2 to 5c; pure lard, 5 1/2 to 6c; hams, 9 1/2 to 10c; shoulders, 9 1/2 to 10c; choice bacon, 7 1/2 to 8c; extra mess beef, new 9c; old 7c; plate beef, 7 1/2 to 8c; tallow 3c.

COFFEE.—City prices are: Rio, 15c; fair, 16c; good, 18c to 19c; prime, 20c; choice, 22c to 23c; fancy, 24c; Maracabo, 25c; Santos, 26c; Santos, 26c; Java, 32c.

HARDWARE.—Axes, single bit, bronze, \$5.00; double bit, bronze, \$3.50; single bit, solid steel, \$6.00; double bit, solid steel, \$9.50 per doz; bar iron, \$1.40 rates; carriage bolts, 75c per cent off new list; tire bolts, 70c and 10c per cent off new list; painted barbed wire, \$1.65; galvanized barbed wire, \$1.95 per cwt; single and double strength glass, 70c and 10c per cent off list; No. 24 sheet iron, \$2.50 rates per cwt; galvanized, 75c and 10c per cent off list; No. 1 annealed wire, \$1.40 rates. Wire nails, \$1.60; steel cut nails, \$1.60 per cwt, new card.

BALED HAY.—Best timothy in car lots, \$10 per ton; ryegrass, \$8.25; wheat straw, \$4.45 to \$5.00; oat straw, \$4.25 to \$4.50.

LOOSE HAY.

The following is a report of the sales of loose hay at the Western Hay Scales for the week ending noon, April 22, with the price per ton on each load:

Friday—2 loads: One each at \$10 and \$7.

Saturday—9 loads: Two at \$11.50; four at \$11; two at \$10, and one at \$9.

Monday—One at \$8.50.

Tuesday—17 loads: Three at \$11; five at \$10; four at \$9; one each at \$11.50, \$9.60, \$8.75, and \$8.

Wednesday—8 loads: Two at \$11; two at \$10; two at \$8.50; one each at \$12 and \$10.75.

Thursday—5 loads: Two at \$11; two at \$10; one at \$9.

DETROIT LIVE STOCK MARKET.

Michigan Central Stock Yards.

DETROIT, Mich., April 23, 1897.

CATTLE.

Thursday's receipts of cattle numbered 779 head, through 228; on sale 551, as compared to 623 one week ago. The quality averaged about the same as for the last few weeks. Market active, good handy butchers steady, others steady to strong.

\$4.30 was the highest price paid for 5 steers av 1,200 lbs, and \$4.25 for 4 do av 1,300 lbs, but the bulk changed hands at prices ranging from \$3 to \$4 per hundred lbs. Bulls, light to good butchers, \$3.65 to \$3.75; feeders and stockers, \$2.75 to \$3.75. Veal calves, receipts were 220, one week ago 222, active but lower; sales at \$4.45 to \$4.50 per hundred lbs. Milch cows and springers active, sales at \$25 to \$45 each, mostly, \$30 to \$40.

Dennis sold Caplis 26 good butchers steers and heifers av \$91 at \$3.75; a fat cow weighing 1,180 at \$3; a good sausage bull weighing 1,370 at \$2.75, and 2 fair butchers cows av 1,065 at \$2.50.

Richmond sold Sullivan 3 good steers av \$93 at \$4. Glenn sold Schleicher 3 fair butchers cows av 1,035 at \$3.75, and 2 heifers av 535 at \$3.25; 3 feeders to Sullivan av \$93 at \$3.70, and 3 fat cows av 1,290 at \$3.25.

Spicer & Merritt sold same 5 steers av 1,204 at \$4.30; a choice fat heifer to McIntyre weighing 1,000 at \$4; 6 steers to Cook & Fry av \$98 at \$3.80, and a heifer weighing 690 at \$3.65.

Ackley sold Sullivan 4 fat cows av 1,155 at \$3.10; 4 feeders av \$82 at \$3.65, and 3 heifers to Loosemore av \$30 at \$3.65.

Smith sold Sullivan 4 steers av 1,300 at \$4.25. Bergen and Terhune sold same 2 fat bulls av 1,040 at \$3; 3 cows av 1,220 at \$3, and 7 steers av \$87 at \$4.05.

Murphy sold Mich Beef Co 6 good butchers steers av \$98 at \$4.

Adgate good same 26 steers and heifers av \$98 at \$3.75.

Weeks sold same 25 steers av \$98 at \$4, and 4 cows av 1,067 at \$3.

York sold Sullivan 2 bulls av 1,155 at \$2.90; 19 good butchers steers to Caplis & Co av 758 at \$3.70; 2 cows av 1,090 at \$2.70, and 4 do av 1,093 at \$2.95.

Haley Bros sold Cross 10 steers av \$93 at \$3.75, 5 mixed av \$46 at \$3.10, and 2 fair butchers cows av 1,015 at \$2.85.

Patrick & Pline sold Cross 5 cows av 1,110 at \$3 and 7 steers av \$87 at \$3.85.

Spicer & Merritt sold Sullivan 13 steers av \$90 at \$3.95 and 1 do weighing 880 at \$3.2

Hogan sold Mich Beef Co 2 mixed av 930 at \$3.50; 1 cow weighing 800 at \$2.50, and 5 steers av 942 at \$4. Spicer & M sold Cross 3 steers av 1,033 at \$4.20; 4 cows av 1,032 at \$2.90, and 3 heifers av 770 at \$3.65.

SHEEP AND LAMBS.

Thursday's receipts of sheep and lambs were light, only 568 on sale as compared to 1,101 one week ago; quality not very good. Market quiet and 5 to 10c lower. Range of prices, fair to good wool lambs, \$5.25 to \$5.50; clipped, \$4.25 to \$4.75; fair to good mixed butchers, \$3.25 to \$4.75.

Nott sold Fitzpatrick 19 wool lambs av 74 at \$5.60. Bunnell sold Hiser 10 part clipped av 59 at \$5. Young & Moore sold Fitzpatrick 48 mixed av 89 at \$4.75.

Mayer sold Duff 17 mixed av 66 at \$3.60. Bergen sold Fitzpatrick 12 wool lambs av 84 at \$5.60.

Adgate sold Mich Beef Co 97 clipped lambs av 75 at \$4.75, and 20 do av 66 at \$3.75.

Major sold Mich Beef Co 100 mixed av 82 at \$3.75. Reason sold Monahan 12 lambs av 47 at \$6.50, and 24 common av 51 at \$3.

Weeks sold Duff 23 mixed av 77 at \$4.25.

HOGS.

Thursday's receipts of hogs numbered 3,330 head as compared to 2,782 one week ago. Market opened slow and lower, later trade was fairly active at prices 7 1/2 to 10c below last Friday's prices, closing weak. Several lots shipped through in first hands and some held over. Range of prices \$3.75 to \$4. Bulk at \$3.90 to \$3.97 1/2. Stags 1/2 off. Roughs \$3 to \$3.65. Pigs \$3.55 to \$4.

Bergen & T sold Smith 18 av 140 at \$3.75. Hogan old Hammond S. & Co 32 av 173 at \$3.95. Patrick & P sold same 66 av 219 at \$3.95. Clark sold same 115 av 193 at \$3.95. Ansty sold same 64 av 171 at \$3.95. Thompson sold same 158 av 124 at \$3.95. Knapp sold Parker, Webb & Co 76 av 182 at \$3.95. Mayer sold same 107 av 235 at \$3.95. Young & M sold same 54 av 191 at \$3.90. H. Horner sold same 153 av 180 at \$3.95. Spicer & M sold same 29 av 162 at \$3.90. Dennis sold same 61 av 155 at \$3.95. Reason sold same 70 av 208 at \$3.95. Glenn sold same 43 av 195 at \$3.95. Sharp sold same 29 av 176 at \$3.95. Bergen sold same 54 av 214 at \$3.90. Nichols sold same 49 av 173 at \$3.90. Bond sold same 13 av 228 at \$3.90. Coon sold same 18 av 209 at \$3.90. Spicer & Merritt sold same 41 av 191, 20 av 205, 27 av 166, and 12 av 176, all at \$3.95. Nicol sold same 23 av 102 at \$3.90. Messmore sold R. S. Webb 77 av 157 at \$3.95. Stevens sold same 33 av 174 at \$3.95. Sly sold same 15 av 159 at \$3.95. Simmons sold same 55 av 153, and 67 av 179 at \$3.95. Butler sold Sullivan 10 av 143 at \$3.92 1/2. Ford sold same 12 av 185 at \$3.95. Horner sold same 84 av 160 at \$3.95. Bunnell sold same 103 av 185 at \$3.97 1/2. Davies sold same 71 av 164 at \$3.95. Richmond sold same 67 av 175 at \$4. Mayer sold same 17 av 148 at \$3.90. Murphy sold same 26 av 201 at \$3.95. Osmus sold same 14 av 191 at \$3.92 1/2. Watts sold same 73 av 164 at \$3.95. Roe & Holmes sold same 95 av 195, 80 av 184, 56 av 182, and 80 av 180, all at \$3.95. Joe McMullen sold Hammond S. & Co 107 av 140 at \$3.97 1/2.

FRIDAY, Apr. 23, 1897.

CATTLE.

Friday's receipts of cattle numbered 728 head, through 226; on sale 502, as compared to 361 one week ago. Trade opened fairly active, later was rather slow, closing weak and 10 to 15c lower than closing prices one week ago. Veal calves active and unchanged. Mich cows and springers slow.

Roe & Holmes sold Fitzpatrick 2 common butchers cows av 1,150 at \$2.30; 2 do av 1,165 at \$2.50, and 5 mixed butchers av 822 at \$2.60.

Bullen sold Sullivan 20 steers av 1,023 at \$4. Roe & Holmes sold Cross 5 fat cows av 1,250 at \$3.30; 8 do av 1,050 at \$3.10; 14 mixed butchers av 900 at \$3.50 and 2 do av 930 at \$3.13; feeders to Sullivan av 938 at \$3.55; 10 do av 921 at \$3.75; 6 steers av 930 at \$4; 3 do av 1,186 at \$3.75; 23 do av 1,050 at \$4; 30 do av 893 at \$4 and 19 do av 1,050 at \$4.10; to Mich Beef Co 3 cows av 1,013 at \$3.

Haller & Co sold Mich Beef Co 18 good butchers steers av 936 at \$4, and 9 fair butchers cows av 1,039 at \$3.

Joyce sold Sullivan 4 feeders av 855 at \$3.60; 1 do weighing 940 at \$3.60; 25 steers av 932 at \$4; a bull weighing 1,300 at \$3; 6 fat cows av 1,040 at \$3.35; 11 steers av 990 at \$3.55, and 2 cows av 880 at \$2.55.

J. H. McMullen sold same 20 steers av 1,233 at \$4.40, 2 stockers av 825 at \$3.50; 12 steers and heifers av 954 at \$3.85, and 9 good butchers steers to Marx av 1,027 at \$4.

Lomason sold Caplis & Co 3 fat cows av 1,193 at \$3.15; a steer weighing 1,150 at \$4.25, and 2 fat heifers av 775 at \$3.75.

Judson sold Sullivan a good steer weighing 1,270 at \$4.40, and 2 feeders av 880 at \$3.60; also 5 good butchers steers to Marx av 840 at \$3.75.

Barber sold Fitzpatrick 9 fat heifers at \$5.53 at \$3.85.

McFall sold Caplis & Co 13 good butchers steers and heifers av 857 at \$3.90.

Jedeles sold Sullivan 10 steers av 1,080 at \$4.15; a bull weighing 1,550 at \$3, and 2 feeders av 940 at \$3.75.

Talmage sold same 13 steers av 1,004 at \$4.10; 2 steers to Caplis & Co av 775 at \$3.70, and a cow weighing 1,090 at \$2.75.

Forbes sold Cross 2 fat cows av 1,030 at \$3; 1 do weighing 970 at \$2.50; 2 do av 1,110 at \$3, and 3 steers av 938 at \$4.

Lovewell sold McIntyre 3 bulls av 840 at \$2.90; 3 fat heifers av 880 at \$3.35; 2 stockers to Sullivan av 680 at \$3.70; to Magee 4 fair butchers cows av 1,012 at \$2.80, and 2 common do av 900 at \$2.

Roberts & Spencer sold Mich Beef Co 10 mixed butchers av 876 at \$3.25, and 7 fair butchers cows av 1,047 at \$2.65.

Ramsey sold Caplis & Co 4 good butchers steers av 1,145 at \$4.20.

Harwood sold Sullivan a bull weighing 2,000 at \$3.25; to Cross 21 steers and heifers av 881 at \$3.75 and a heifer weighing 860 at \$3.50.

White sold Cross 8 steers and heifers av 797 at \$3.75.

SHEEP AND LAMBS.

Friday's receipts of sheep and lambs numbered 647 head as compared to 560 one week ago. Market active and strong; one lot clipped at 73 lb. brought \$5.10; balance as below. All sold; closing strong.

Mich Beef Co sold Lovewell 83 clipped lambs av 73 at \$5.10.

Fox & Bishop sold Mich Beef Co 135 clipped lambs av 69 at \$4.75.

Bullen sold same 79 mixed av 81 at \$3.75.

Allen sold Young 38 mixed av 70 at \$4.30.

Jedeles sold Hammond S. & Co 27 lambs part clipped av 74 at \$5.50.

Barber sold Mich Beef Co 33 wool lambs av 68 at \$5.50, and 50 clipped av 56 at \$3.25.

Griffin sold Hammond S. & Co 48 lambs part clipped av 78 at \$5.50.

Roe & Holmes sold Mich Beef Co 12 mixed av 75 at \$4.

Burden sold Lovewell 120 clipped av 56 at \$3.95.

Lomason sold Hiser 16 lambs av 57 at \$4.60.

Roberts & S. sold Mich Beef Co 47 mixed av 65 at \$4.50.

HOGS.

There was 2,221 hogs on sale Friday, as compared to 1,774 one week ago. Trade opened fairly

active and all changed hands at strong yesterday's prices. Bulk going at \$3.95, closing firm.

Judson sold Parker, Webb & Co 45 av 217 at \$3.95. Taggart sold same 90 av 189 at \$3.95.

Driscoll & P sold same 54 av 211 at \$3.95. Parsons & H sold same 115 av 210 at \$3.97 1/2 and 75 av 206 at \$3.97 1/2.

Warren & D sold same 77 av 183 at \$3.95. Bullen sold same 65 av 189 at \$3.95.

McMullen sold Hammond S. & Co 62 av 181 at \$3.95 and 26 av 171 at \$3.95.

Sleeper sold same 42 av 203 at \$3.95. Lomason sold same 41 av 154 at \$3.95.

Clark & B sold same 144 av 191 at \$3.95 and 87 av 195 at \$3.95.

Roberts & S sold same 45 av 199 at \$3.95. Nixon sold same 73 av 207 at \$3.95.

Luckie sold same 103 av 189 at \$3.95. White sold same 42 av 187 at \$3.95.

Jedeles sold same 91 av 185 at \$3.95. Rehbus sold same 60 av 191 at \$4.

Lovewell sold same 38 av 173 at \$3.95. Fox & Bishop sold same 135 av 195 at \$3.95.

McHugh sold same 104 av 204 at \$3.92 1/2. Weeks sold same 106 av 189 at \$3.95.

Haley Bros sold same 81 av 181 at \$3.95. Underwood sold same 66 av 180 at \$3.95.

Forbes sold same 60 av 166 at \$3.95. Griffin sold same 111 av 195 at \$3.95.

Haller & Co sold Sullivan 75 av 171 at \$3.95. Roe & Holmes sold same 51 av 171, 39 av 181, 64 av 166, 29 av 187, 74 av 161 and 21 av 154 all at \$3.97 1/2.

Spicer & M sold same 75 av 141 and 27 av 194 at \$3.97 1/2.

Joyce sold same 92 av 147 at \$3.92 1/2. Allen sold R. S. Webb 38 av 180 at \$3.95.

Descher sold same 86 av 174 at \$3.95.

OUR BUFFALO LETTER.

EAST BUFFALO, April 22, 1897.

CATTLE.—Receipts of cattle on Monday last were 5,884, as compared with 4,796 for the same day the previous week; and shipments were 3,542, as compared with 4,016 for the same day the previous week. The market opened Monday fairly active, and prices stronger and higher on some grades, such as prime butchers' steers, while others were only steady. Since then the market has held steady, with a generally firm tone, especially on prime cattle and good butchers' steers, heifers and cows. Stockers and feeders are firm, with an active demand. As compared with a week ago all classes of cattle, except bulls, oxen and feeders, are higher, while those grades and veal calves are unchanged. Mich cows are in good demand, and higher for choice. Quotations at the close on Wednesday were as follows: Export and shipping steers.—Prime to extra choice steers, 1,450 to 1,800 lbs., \$5.15 to \$5.35; do, 1,300 to 1,400 lbs., \$4.90 to \$5.10; good to choice fat steers, 1,450 to 1,600 lbs., \$5.00 to \$5.25; good choice fat steers, 1,300 to 1,400 lbs., \$4.75 to \$4.90; good to choice fat smooth steers, 1,100 to 1,300 lbs., \$4.50 to \$4.70; coarse and rough fat steers, 1,100 to 1,450 lbs., \$3.75 to \$4.30. Butchers' native cattle.—Fat smooth dry fed steers, 1,050 to 1,150 lbs., \$4.25 to \$4.65; fat smooth dry fed light steers, 900 to 1,000 lbs., \$4.00 to \$4.15; green steers, thin to half fattened, 1,000 to 1,400 lbs., \$3.65 to \$4.00; fair to good steers, 900 to 1,000 lbs., \$3.75 to \$4.00; choice smooth fat heifers, \$3.85 to \$4.25; fair to good fat heifers, \$3.40 to \$3.75; light, thin half fat heifers, \$2.85 to \$3.25; fair to good mixed butchers' stock, fat and smooth, \$3.00 to \$3.60; mixed lots, fair quality fat cows and heifers, \$3.50 to \$3.60; good smooth well fattened butchers' cows, \$3.50 to \$3.75; fair to good butchers' cows, \$3.55 to \$3.65; common old cows, \$3.15 to \$3.50. Stockers, feeders, bulls and oxen.—Feeding steers, good style, weight and quality, \$3.65 to \$3.85; fair to good quality stockers, 650 to 750 lbs., \$3.50 to \$3.60; light, thin and only fair stock steers, \$3.25 to \$3.50; stock heifers, fat to choice, \$3.75 to \$4.00; export weight bulls, fat and smooth, \$3.60 to \$3.75; good fat smooth butchers' bulls, \$3.35 to \$3.60; fair to good sausage bulls, \$2.85 to \$3.25; thin, old, common bulls, \$2.25 to \$2.65; stock bulls, \$2.50 to \$3.00; fat smooth young oxen, to fit for exports, \$4.00 to \$4.50; fair to fairly good, partly fattened young oxen, \$3.50 to \$4.00; common and poor oxen, \$2.25 to \$2.50. Veal calves.—Common to fair, \$3.00 to \$4.00; good to choice, \$4.25 to \$4.50; prime to extra, \$4.75 to \$5.00. Mich cows.—Strictly fancy, \$3.85 to \$4.25; good to choice, \$3.65 to \$3.85; poor to fair, \$3.10 to \$3.25; fancy springers, \$3.40 to \$3.60; fair to good, \$3.20 to \$3.30; common milkers and springers, \$3.10 to \$3.20. Thursday the market ruled steady on butchers' grades and strong on exports. Quotations unchanged. Prospects favorable. Veal calves firm.

SHEEP AND LAMBS.—Receipts Monday were 16,800 as compared with 18,000 the previous Monday; shipments were 11,600 as compared with 11,800 same day the previous week. The market on Monday opened slow and lower on lambs, while sheep and yearlings showed little change. Since Monday the tendency has been downward on both sheep and lambs, and values are fully 10c on the average lower than a week ago. Wool stock shows the most weakness and is gradually declining; clipped stock steady at quotations. Quotations at the close on Wednesday were as follows: Native wool sheep.—Choice to extra wethers, \$5.00 to \$5.35; mixed sheep, choice to prime, \$4.50 to \$4.90; do, fair to good, \$4.10 to \$4.40; do, common to fair, \$3.90 to \$4.00; cull sheep, common to good, \$3.00 to \$3.75; heavy export sheep, mixed ewes and wethers, \$4.65 to \$4.90; selected, prime export wethers, \$4.90 to \$5.25; fair to choice native export ewes, \$4.55 to \$4.80; bucks, common to good, \$2.50 to \$3.25; bucks, choice and export, \$3.25 to \$3.50. Clipped sheep.—Prime to fancy wethers and yearlings, \$4.40 to \$4.60; good to choice handy sheep, \$4.10 to \$4.40; common to fair, \$3.40 to \$4.00; culls and common, \$2.00 to \$3.25. Native lambs.—Extra to prime heavy wool, \$6.10 to \$6.30; good to choice, \$5.65 to \$6.00; common to fair, \$4.75 to \$5.00; culls, common to good, \$3.50 to \$4.00; yearlings, fair to extra, \$4.75 to \$5.00; clipped lambs—Fancy handy, 85 to 90 lbs., \$5.15 to \$5.30; good to choice, 75 to 85 lbs., \$4.90 to \$5.00; fair to good, 65 to 70 lbs., \$4.50 to \$4.75; culls, common to good, \$3.00 to \$4.40. Clipped lambs, the market was firm and heavy clipped lambs, choice selling at \$5.40; fair to good, \$5.15 to \$5.35; culls, \$3.80 to \$4.50. Offerings of sheep light; choice yearlings, 5 cents; good fat clips, \$4.50 to \$4.75; wool stock dull and neglected, weather becoming warm.

HOGS.—Receipts of hogs on Monday last were 28,020, as compared with 23,500 for the same day the previous week; and shipments were 18,180 as compared with 17,640 for the same day the previous week. The market opened Monday with values higher than a week ago by fully 5c, but since then the market has declined, and shows a loss on all grades ranging from 5 to 10c, except on prime heavy, which are only 2 1/2c lower. The demand has been light, and with unfavorable reports from the west there is a weak feeling in the trade. Quotations at close on Wednesday were as follows: Good to choice light medium yorkers, 180 to 180 lbs., \$4.17 1/2; good to choice pigs and light yorkers, 135 to 150 lbs., \$4.15 to \$4.20; mixed packing grades, 185 to 200 lbs., \$4.20; fair to best medium weights, 210 to 230 lbs., \$4.20; good to prime heavy hogs of 270 to 300 lbs., quotable, \$4.17 1/2; rough, common to good, \$3.50 to \$3.75; stags, rough to good, \$2.75 to \$2.95; pigs, light, 100 to 120 lbs., good to prime corn fed lots, \$4.20 to \$4.25; pigs, common, thin skippy, fair quality, \$3.50 to \$3.90. Thursday the market opened 2 1/2 to 5 cents lower, closing firmer with early loss regained. Good mixed, \$4.17 1/2 to \$4.17 1/2; stags and roughs, \$3.25 to \$3.80.

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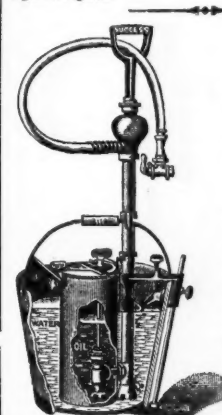
CHICAGO.

UNION STOCK YARDS, April 22, 1897.

CATTLE.—The receipts for last week were 39,396 against 41,948 for the previous week, and 44,536 for the corresponding week in 1896. Up to and including Wednesday of this week the receipts have been 34,020, as compared with 28,334 for the same days last week, an increase of about 6,000 head. The market opened easy this week, and prices a little lower on some grades than the previous week. Since the opening, however, values have held steady in the face of increased receipts, especially on prime steers, which are scarce. On Wednesday business was rather slow and prices generally easier, although not actually lower. Only a few good steers were on sale, and those went at \$5.50, the highest price yet reached. Prime steers, \$5.40 to \$5.50; choice, \$5.25 to \$5.50; good, \$4.65 to \$4.90; ordinary to fair, \$3.50 to \$4.50; fat cows and heifers, \$3.75 to \$4.35; common to fair cows, \$2.40 to \$3.65; stockers and feeders, \$4.25 to \$4.50, and firm; bulls, bologna, \$2.50 to \$3; feeders, \$3.25 to \$3.50; exporters, \$3.40 to \$4. Veal calves firm and higher, at a range of \$3.25 to \$5.25 per hundred. Thursday receipts were 8,000; market steady to 5c higher, with top sales of prime steers at \$5.40, and choice heifers at \$4.40.

SHEEP AND LAMBS.—Receipts for the past week were 67,224 as compared with 52,221 the previous week, and 78,994 for the corresponding week in 1896. Up to and including Wednesday of this week receipts have been 52,688, as compared with 44,660 for the same days last week, an increase of 8,000 head. Sheep and lambs are lower than a week ago, but are yet selling at good prices. Since Monday lambs have held steady. Spring lambs on Wednesday reached \$9 per hundred for a prime lot weighing 54 lbs; but fair to good lots sold at \$5.25 to \$7. In sheep, clipped westerns and Texans sold at \$4.50; in fleece would make \$4.80 to \$4.90. Top Colorado lambs sold at \$5.65 to \$5.75; one lot held all the week at \$5.90, for which there were no buyers; were offered only \$5.50 Wednesday. The best clipped Texans offered for many a day, a large per cent of yearlings and lambs, made \$4.50. The market closed rather dull. Receipts on Thursday were estimated at 8,000. Marke strong and active.

HOGS.—The receipts for last week were 111,821 against 103,922 for the previous week, and 144,195 for the corresponding week in 1896. Up to and including Wednesday of this week, receipts have been 72,505, as compared with 61,915 for the same days last week, an increase of 11,000 head. The market on Wednesday ruled weak, at a decline of 5 to 7 1/2c on about all grades. Roughs sold at \$3.60 to \$3.80; prime heavy packers and good mixed mostly around \$4.07 1/2; prime mediums and butcher weights, \$4.07 1/2 to \$4.10; a few at \$4.12 1/2; prime light, \$4.10 to \$4.12 1/2. At the close there were a large number left in the pens unsold. Thursday receipts were 24,000. The market ruled active at strong Wednesday's prices, with prime heavy selling even with good light weights.



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The Deming Company, Salem, Ohio, make sprayers same as illustration, both in knapsack and barrel type. Preparing and applying kerosene emulsion with this machine the oil and water are thoroughly mixed automatically in any desired proportions while pumping. It can be used to spray in the usual way by detaching the kerosene tank. All working parts are brass, the oil tank being made of copper. Complete directions are furnished with each Emulsion Sprayer. An indicator with gauge plate shows the proportions of oil and water for various purposes. The Deming sprayer and nozzles can be purchased from dealers generally. Send for free catalog.

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Horticultural.

FRUIT-GROWERS AND NURSERYMEN AT VARIANCE.

A convention of fruit-growers and entomologists was recently held in Washington, D. C., in response to a call of the Ohio Horticultural Society to take measures to prevent the spread of dangerous diseases and injurious insects among the fruit-growers of the country. At that meeting resolutions were adopted calling for the assistance of the government, through remedial legislation, to attain the end aimed at. In accordance with these resolutions a bill has been prepared which will be introduced into Congress at as early a day as possible. The title of this bill fully explains its object, and is as follows:

"An Act to provide for the inspection and Treatment of Trees, Plants, Buds, Cuttings, Grafts, Scions, Nursery Stock and Fruit imported into the United States, and for the inspection and Treatment of Trees, Plants, Buds, Cuttings, Grafts, Scions and Nursery Stock Grown Within the United States, which becomes a Subject of Interstate Commerce."

The provisions of this act are in accord with its title. The importer of trees, plants, buds, cuttings, fruits, etc., is compelled to have them inspected at his own expense at the ports of entry before shipment to any other points. Then nurserymen are compelled to have all their stock inspected and properly labeled and stamped to show it is free from injurious insects or diseases before it is allowed to be shipped to other states. This is to be done at the expense of the nurseryman, and he is to be fined not more than \$500, or imprisoned not longer than one year, if he fails to obey the provisions of the act.

The peculiar thing about the act is the fact that foreign fruit is to be subjected to such inspection, but no reference is made to domestic fruit. This is what has excited the ire of nurserymen. They contend, and with truth, that such insects as the San Jose scale, are just as liable to be spread through the fruit shipped from affected orchards as through stocks sent out by nurserymen. The fact that the convention demanded the inspection of imported fruit is pretty good evidence that those who took part in it knew quite well that the fruit was equally as dangerous a means of transmitting diseases and insect pests as trees, plants, buds, or scions. With this knowledge it is certainly a singular thing for them to omit domestic fruit from the list of articles for which they demand government inspection, stamping and labeling.

It is a fact known to all fruit-growers who have given any attention to the subject, that for the past two years California pears, shipped into this and other States, have shown the presence of the San Jose scale, the most dangerous pest known to the fruit-grower. If it is to be disseminated over the country by the fruit of affected orchards, what is the sense of inspecting and labeling nursery stock? We are in far more danger in this State from California fruit than from eastern nursery stock, and any law for the prevention of the spread of such pests which does not recognize this fact will prove worthless. In case such an act as the one referred to becomes a law, then States free from such insect pests, as a precaution against them, should pass laws preventing the shipment of fruits into them from States whose orchards are suffering from dangerous diseases and injurious insects.

For the Michigan Farmer.

THE SUCCESSFUL HORTICULTURIST.

To be a successful horticulturist a person must have, in a greater or less degree, inherent in their nature the cardinal principles which lie at the bottom and constitute the basis or foundation of success.

Success in this as in other occupations is not a matter of chance. It is a result of applying certain known rules or principles, which of themselves must bring success, and the degree of success attained depends only upon the thoroughness with which these principles are applied. First, a person must have that quality of stick-to-it-iveness that never knows defeat; moments of discouragement there may be, but from these they must rally, with a greater determination than ever to surmount any and all difficulties. The person who is easily dissatisfied and continually wandering from one thing to another will never be a success anywhere.

To this quality, add that of thoroughness, for there must be no slighting of work. The expression "it's good enough" is not found in the successful horticulturist's vocabulary for nothing short of perfection will satisfy him. To be sure, perfection in the strictest sense of the term is not often reached; yet a wide-awake horticulturist will often get results that the uninitiated might think perfect.

He prepares his soil after the most improved methods, and is always ready to take advantage of every improvement in his line of occupation.

The successful man must have ambition also, he must be ever striving to reach the top of the ladder; to excel in his line must be his aim, the goal of his ambition.

The successful man also takes pride in his work, he delights to excel, not alone because of the pecuniary gain, but also because of the pleasure that comes with success.

The ambitious man never neglects his work if it can possibly be avoided, because

of the pride he takes in it, and this pride, which in this sense is a very commendable trait, is another element which helps to make success certain.

The successful man must have a love for his work. Love for nature removes the disagreeableness from the horticulturist's occupation, and makes work easy. He takes delight in working among his plants, because he loves to see them thrive.

To him they are living creatures, and he studies to know their habits, their likes and dislikes, in order that he may more fully meet the requirements of their natures, and thus allow them to grow and develop to the highest state of perfection.

In conclusion we sum the matter up and reach the following conclusions or facts. The successful or model horticulturist is persistent, not easily discouraged; he is ambitious, he takes pride in doing his work well, he loves his work and he loves God, at least through nature.

St. Clair Co., Mich. M. N. EDGERTON.

For the Michigan Farmer.

AROUND THE KITCHEN DOOR.

Knowing nothing of a family, and yet wanting to get at their true character, I would not test them by the parlor, or even the looks of the pantry, but just open the back door in the spring and take a look for two minutes. Here is one yard, a great pile of ashes close to the steps, and tin cans and old bones, plenty of them. They began a garden the year before and spent a considerable sum in choice plants, including roses. But they soon tired of caring for them, and all through the past cold winter not a plant was even slightly protected, while a golden-leaved honeysuckle flapped against the wall until the long shoots were bruised, if not broken. Probably the whole outlook will be so discouraging that they will vote "It doesn't pay to fix up a garden," and the back yard will be a howling wilderness for the rest of the year, and much health and enjoyment lost to them because they didn't take pains to leave all cleared up, with plants protected in the fall. But here is a look from another back door and it was enough to delight a plant lover's heart. No ashes, cans or old bones to be seen. All winter long they were carried the whole length of the yard and deposited in a barrel in the alley. Paths were kept swept, and the garden, dug in the fall, showed its brown color, the richest tint in the world, the winter's storms having pulverized and enriched the soil. Things planted in it would not need much coaxing to spring up, bud and flower, as soon as May be. The roses had their covering of straw, and the vines were fastened to the wall; no loose ends that look so careless. The very prettiest flowers will be around the door. The lady that has charge is going to refresh her eyes and have some pleasant thoughts while she washes the dishes or prepares the food. Even under the steps, that receptacle for all dirty odds and ends, is cleaned out. And yes! ferns are planted there, and no doubt will flourish in such a cool and shaded place. Be determined this year to make the most of your back yard, large or small, and have the prettiest place of all right around the kitchen door.

ANNA LYMAN.

TREE PLANTING AND PRUNING.

The advice given on these subjects by Thomas Meehan, the veteran horticulturist, in the following article, is of the utmost value to those who are about planting trees. The information the article contains is given in clear and concise terms, so that anyone can follow the methods described:

CAUSES OF LOSS.

Probably the loss of the large number of trees that die after transplanting is due more to improper planting and the neglect to prune them sufficiently than to any other cause, and it is to prevent this as much as possible that Mr. Meehan offers these suggestions:

When the trees are received from the nursery they should be "heeled in," in order to keep the roots moist and free from the air. "Heeling in" is merely putting the roots temporarily in the ground and covering them with a thick layer of soil. The trees are "heeled in" closely, so that a great many can be put in a small space. Care must be taken to pack the earth in tightly against the roots to exclude the air. Trees properly "heeled in" will keep in good condition for several weeks, or even longer, though it is good policy to have the ground prepared in advance, so that trees may be planted at once upon their arrival, and only "heeled in" until all can be permanently set out.

Should the plants become frozen in transit, no injury will occur if the box or bale be placed in a dark cellar or covered over with straw or similar material and allowed to thaw out, without being exposed to light, air or any artificial heat.

SOIL AND PLANTING.

Successful planting depends to a great extent upon the soil. While a tree will stand almost any amount of moisture, it cannot exist if water remains about the roots. Good drainage must be had. Water will not pass through clay soil, and where the soil is such, a hole should be dug sufficiently deep to pass through the clay to the strata below. Where the clay is too deep for this, other means of drainage must be provided, either by stone drains (tile drains will soon choke up with roots) or by digging very large holes, three or four feet

deep, and as wide or wider, and the bottom filled with broken stone or ashes. Another method of planting when the soil is of this character is to loosen the soil for a foot or so deep, but do not dig a hole. Place the tree on the top of the ground and fill up around it with good soil. This will set the tree in a mould.

LOOSEN THE EARTH.

Always dig a larger hole than the roots require, even if it is not filled in with new soil, as it is essential that the ground should be loosened up to provide for good drainage and plenty of moisture. Loose ground absorbs the moisture much quicker than when it is undisturbed. For an ordinary sized tree, say, ten to twelve feet in height and one and one-half to two inches in diameter, the hole should be made at least three feet in diameter and two feet deep. If possible, cart away all the earth taken out, and bring new top soil and manure in which to plant the tree—about one-fourth well-rotted manure and three-fourths of top soil. If any roots are broken, cut them off smoothly with a sharp knife; they will more quickly callous when the surface is smooth.

Set the tree in the hole to about the same depth, or a trifle deeper, than it was in the nursery—the discoloration above the roots will indicate the point. Fill in about the roots slowly, being careful, should the tree have a great number of fibrous roots, to work the earth well in among them and under the butt of the tree. Fine soil free from large stones or clods of earth should be used for this. Take a good, stout rammer and pack the earth in as tightly as possible, as it is gradually filled in about the tree. If the earth is filled in too fast it cannot be packed tight enough. The object is to press the earth as close to the roots as possible, so that there will be no air between them and the soil. The close pressing soil will enable the roots to take moisture from it readily. There is no danger of packing the soil too hard.

PRUNING.

Pruning is an essential feature, and yet it is frequently overlooked by amateurs. A great many trees fall from exhaustion from lack of pruning. A vigorous tree has enough roots to supply it with all the sap it needs, but as soon as it is transplanted it is unable to draw moisture from the earth until new roots are made, and it again becomes established. All this time the branches and leaves are drawing on what sap there is in the tree, and when this becomes exhausted, if new roots have not yet grown the tree dies. All trees need more or less pruning when transplanted; just how much depends a great deal on the tree to be pruned. A maple, poplar, birch or elm will do with very little pruning, while an oak, beech, chestnut, walnut or ash requires severe cutting. The roots which a tree has must also be taken into consideration. If it is well-furnished with roots and fibers, it will require less pruning than if it has but a few stout roots devoid of fibers. In a general way, it may be said that hardwood trees require severe pruning, while those having a soft, sappy wood need but a light one. This does not always apply. A pin oak has very fibrous roots, as a rule, and moves quite easily without much pruning, though some will consider it advisable to do severe cutting even in its case. On the other hand, the larch, which has a very soft, sappy wood, but practically no fibers, and, in fact, but little roots, must be pruned closely to get it to transplant well.

MULCHING.

Mulching consists of putting a thick layer of straw, hay or well-rotted manure on the surface of the ground about the tree, covering the earth disturbed when the tree was planted. It should be put on at least three or four inches thick. Manure makes the best mulch, as it acts as a fertilizer as well—the rain washing its substance down to the roots from time to time. We advise mulching for both spring and fall planted trees and shrubs. It prevents the drying out of the soil, retains moisture during the summer, and in the winter the frost does not penetrate so deep as would otherwise be the case.

More might be written on this subject, but we think what we have stated will be sufficient. In short, the points are—a large hole, good soil tightly packed about the roots, ample pruning and a good mulching.

For the Michigan Farmer.

THE BLACK PEACH APHIS.

During the summer of 1896 there was considerable complaint that spring set peach trees failed to grow. While the weather at the time of planting undoubtedly had much to do with the loss, in a number of cases, particularly in the vicinity of Grand Rapids, it was found that the trees were destroyed by the black peach aphid.

So far as is known this insect has not gained a foothold in any Michigan nursery, but as most of our nurserymen buy more or less of their trees, and as there is a chance that the trees may be infested, it will be well to take steps to treat all trees before they are planted, especially as this can be done with perfect safety to the trees and with little expense.

The aphid is easily destroyed if the trees are dipped in tobacco water, and as it is a good plan to carry the trees in a barrel of water when planting them, it is an easy matter to treat them. The day before planting place a half-bushel of tobacco stems in a half-barrel of water, and, when planting, a bundle of trees placed in this will be sufficiently treated in a few minutes, and the barrel can be drawn from hole to hole on a stone boat. In this way there



This little picture will come home with telling force to many a tired and overworked farmer's wife, who has often felt that she could not longer stand the strain and who finally succumbed to disease. Poor woman! Do you not know that there is within your easy reach a remedy that will quickly restore you to health and happiness? A remedy that will positively cure

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will be no danger of drying the roots, and if it should happen that the trees are infested much loss will be prevented.

If the aphid has already appeared on the trees in the orchard, a half-bushel to a bushel of unleached wood ashes scattered over a space a little larger than the branches will destroy them and aid the trees in their growth.

L. R. TAFT.

INSECTS INJURING APPLES.

Bulletin No. 36 of the Missouri Agricultural Experiment Station, Columbia, by Prof. J. M. Stedman, reports the results of elaborate experiments with means of preventing two insects very injurious to apple trees, and describes cheap and efficient methods of combating them.

The insect known as the apple leaf folder may be readily killed by thoroughly spraying infested trees or nursery stock just as soon as the young insects begin to hatch, and before they have had time to fold the leaves to any considerable extent. This spraying should be done just as the apple tree leaves are unfolding.

The spraying mixture should be made as follows: 1 pound of Paris green, 3 pounds of fresh lime, 150 gallons of water.

Since there are three broods of this insect each year, there are three periods during which spraying can be most successfully done.

The leaf crumpler, another insect very injurious to apple trees, may be readily killed by thoroughly spraying the infested trees while the leaves are unfolding and before the blossoms open, with the same mixture as recommended above.

If necessary, the trees may be sprayed again immediately after all the blossoms have fallen, but in this case the amount of water in the mixture should be increased to 175 gallons.

Never spray a fruit tree while it is in blossom; serious injury to the blossom and imperfect pollination may result, and in many instances honey bees will be killed.

Never omit the fresh lime, and always use two or three times as much lime by weight as Paris green. This will lessen the chances of burning the leaves and injuring the trees. Spray with a mixture of the strength just given. To make it weaker is to render it less effective in killing insects; to make it stronger is to injure the foliage of the trees. Always see that the mixture is kept constantly stirred while spraying. Apply with as much force as possible, and use as fine a spray as can be made. Spray thoroughly. Hold the spray on the tree long enough to saturate it and to reach all parts, and always spray from at least two sides.

The question of whether a law for the stamping out of the yellows shall be passed by the legislature or not, is causing a bitter fight among fruit-growers in Massachusetts. One writer says in an agricultural journal: "The American farmer wants no government spies or officials commanding him what, when, where and how to grow this or that. If one cultivates a nuisance to the detriment of his neighbor, there is a law to fill the bill. As the yellows have not been proved to be contagious, only through seeds and buds, there is no case of nuisance to be found." If a majority of the legislature of that State takes the same view of the subject as the writer of the above extract, we shall expect a good market for Michigan peaches in Boston in a few years.

A course of Hood's Sarsaparilla taken now will build up the system and prevent serious illness later on. Get only Hood's.

SAN JOSE SCALE FROM NEW JERSEY.

To the Editor of the Michigan Farmer.

This week I took out my knife to trim a small shrub, *E. Longipes* that I got one year ago from a nursery firm in New Jersey, when I discovered that it was half covered on the under side of stalk and twigs with San Jose scale. I cut it off below ground and burned it. It was away from other trees. I write this to you to make such use of as you see fit, against this scale enemy. I find nothing of it on other trees. I live on the south line of Michigan. I report this to Ohio and Michigan experiment stations and the nursery firm referred to.

LUCAS COUNTY, OHIO. M. S. HUBBELL.

SOILS AND POTTING.

A paper on "Soils and Potting" was recently read before the Massachusetts Horticultural Society by T. D. Hatfield, the following abstract of which is taken from the *Massachusetts Ploughman*:

This subject is most important, both from the gardener's and the farmer's point of view. Gardeners seldom agree fully about the proper soil for any crop. Soil may be heavy or light, and land high or low, with much variation of exposure. We often wonder at our neighbor's success under conditions which we should consider failure certain. An acquaintance of mine, a gardener at Cape Ann, told me that the only potting soil he could find was turf from what had once been a salt marsh. After it had been broken up and exposed to frost and air, he found he could grow almost anything in it.

Sometimes we have a lot so springy that it cannot be cultivated till late in the season, and again a soil so dry that we must irrigate for all but early crops. A dry soil is easily worked, but holds substances poorly, and therefore needs frequent manuring. A heavy soil is probably best and holds manure better. By autumn plowing and cultivating the ground in plats, one can bring it into good friable condition.

We gardeners believe in "leaving well enough alone," and there are methods which we continue because it is the custom, though we cannot explain why. Much must be learned by experience.

We read in old books, "one-third of turfy loam, one-third of leaf soil and one-third of sand," or it may be fourths, including rotted manure, or fifths, with peat added. This accurate measuring, however, is slow, and but few mixtures of the soil are in use today. Leaf soil, one of the best ingredients in any compost, is seldom used except in private gardens. Well-rotted manure is a good substitute. However, the soil should be light for potted plants, and there is less danger from overwatering with the hose. Rose growers always find means of meeting the wants of the soil. They may add clay, but can generally do without it.

With azaleas it used to be considered necessary to use English peat, and 90 per cent of these plants are still so grown in England. But look at the azaleas grown by Mr. Sanders, gardener to Prof. Sargent, of Brookline, and you will see that azaleas can be grown in soil almost wholly lacking peat.

There are other considerations almost as important as the soil and its consistency. For gladiolus I tried various kinds of soil, all to little advantage. With these plants much depends on caring for the tubers during the so-called resting season, though they are never absolutely at rest, and it is a mistake to remove them and store in dry sand. They should never become thoroughly dry, for living shoots will always be found which require some nourishment. Start with sound, healthy roots, withholding water until some leaf growth is made, and keep near the light, and then gladiolus will succeed in almost any soil.

I have but one compost heap. Good, turfy loam is not plentiful, and some of us have found how to get along without it. Old country carnation growers are extremely careful in mixing their potting soil, but the American grower prepares his in the field without a foot of turf. The best method is to cultivate the area for stripping, growing thereon a crop of clover, with no other object beyond turning the best of what is put into the soil as manure into plant food of the kind which the carnation most needs. The American grower raises the better carnations, though it is true that he has better light during winter time, has made a specialty of the work, and has originated a new type of carnations. This shows that the importance of a prescribed composition for soil is overestimated. I have grown chrysanthemums in soil from the compost heap which were just as good as those grown in special soil.

In the spring there is generally turf trimming to be done, and I used to get enough in this way for a season's use; but now if I get a half-dozen carloads of turf I mix it two loads of the best manure—sheep manure is preferred, as it is richer, so that less is required. This I put in layers alternately with pure ground bone; fermentation starts, and the soil is heated to 120 degrees, which will kill all insect life and weed seeds, and make the bone available as plant food. Bone meal should be worked into the compost long before it is needed, as it is not fit for use until fermentation has subsided. It should never be used as a top-dressing.

I have said that light soil is best for potted plants, but a man may get along with heavy soil if he understands its management. Injudicious watering will lessen the value of the best compost, and lack of air and of proper heat and moisture would ruin the best plants. In potting plants

have clean pots. If new, deodorize; that is, expose to a rainstorm, or else fill with moist earth and leave for a day or two. This earth should not be used again. Next in importance is good drainage. The best material is crocks or broken pots. Coal ashes, though excellent for many plants, is bad for others.

Plants which do the greater part of their growing in winter time, as well as those which remain a long time without repotting, require most care. All potting should be done firmly and for the most part by hand. Plants which grow quickly, geraniums, heliotropes, coleus and fuchsias—what gardeners call soft-wooded plants—need less care. Amateurs often put out their window plants for a summer's growth, and it is pleasant to see how luxuriantly they grow, with unrestricted root area, fresh air and sunshine. But in winter again they must be pruned and curtailed in root room. Geraniums and almost all window plants stand this rough treatment. I, myself, should prefer to dispense with old plants, having raised a lot of young stock in the meantime. Amateurs often ask what fertilizers to use for potted plants, when all that is needed is better light and air, or more or less heat.

The best of liquid manures for potted plants, to continue the productiveness of flowers or fruits after the natural resources of the soil have been exhausted, is the dregs from the barnyard. It is well to start with one-eighth strength and increase as experience dictates. Sheep manure may be used at the rate of a peck to 50 gallons of water. Sulphate of ammonia and nitrate of soda, at the rate of one pound to 50 gallons, are really stimulants, and not lasting manures, and their action is quick of benefit as well as of injury. Liquid manures should be used only on healthy plants and there must be free drainage.

THINNING APPLES.

The New York Station, during the past heavy apple crop year, conducted some interesting experiments in thinning apples. Three methods were compared: 1. Removing all wormy, knotty, and imperfect fruit. 2. In addition to the imperfect fruit, others were removed so that no apples remained nearer than about four inches apart. 3. The apples were thinned to about six inches apart. All this thinning was done when the fruit was half-grown. At gathering time, the fruit from the thinned trees was better in color, size and shape, in all grades, than that from the unthinned. The results seem to favor the second method—thinning to four inches. The work paid a handsome profit over the cost, even on the one crop, and it is confidently expected that the thinned trees will bear a fair crop this year, while those not thinned will bear none. The exhaustion caused by maturing such a heavy crop of seeds will cause them to take a year's rest. As the apple crop was everywhere very heavy last year, prices were low, and next crop is certain to be light and command high prices; hence, the last year's thinning is expected to show larger profits this year than last. Indeed, Professor Beech thinks it would have paid any man well to have taken a rake and raked off half the apples from all his trees or all the apples from half of them, last year, so as to insure a crop for this year.

PROFESSOR TAFT, of the State Agricultural College, says that the peach-growers in this State who have sprayed their trees with the bordeaux mixture, in order to prevent curled leaf and rot, have found a decrease in the number of their trees attacked by the yellows. Some of these orchards, where the disease had never failed to appear in previous years, have been entirely free from it for two years, while its ravages have been continued in surrounding orchards. This does not prove that the disease can be prevented by using fungicides, but since it is known that the yellows is highly contagious and that it probably is spread by germs of some kind, it is possible that trees kept covered with copper sulphate are protected against it. Peach-growers who spray their trees just before buds start in spring, and once or twice after the blossoms fall, will certainly find that this treatment will pay against rot and leaf curl even if it fails to arrest the progress of the more dreaded yellows.

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AYER'S Cathartic Pills
CURE DYSPEPSIA.

NERVOUS PROSTRATION.
ON THE VERGE OF A TOTAL COLLAPSE.

The Wear and Tear Incident to the Life of a Travelling Salesman Very Often Results Seriously.

From the Press, Cleveland, Ohio.

J. H. Whann, who lives in suite No. 20 in the Body block, corner of Payne and Willson Avenues, Cleveland, Ohio, had suffered for months from nervous prostration and extreme nervousness. His nervous system had become undermined by irregular habits, and he was reduced to the verge of total prostration. Mr. Whann is no longer a travelling salesman, that occupation was fraught with too much danger to his health, and he abandoned it. At present he is connected with the Mahoning Coal Company, and has charge of a mine three miles distant from Alliance, Ohio, and there he spends most of his time.

"Travelling salesmen have to put up with a great many inconveniences when they are on the road," said Mr. Whann. "Meals, sleep and rest, are often irregular, and these causes unsettle one's nerves. I was rapidly approaching a point where I would become a nervous wreck unless I employed extreme measures. I found it almost impossible to read or write for a period longer than a few minutes. I would pick up a newspaper with the intention of glancing over the news of the day. In five or ten minutes I would have to lay the paper aside and get up and walk around to quiet my nerves. It was the same when I did my writing. I could write for a few minutes and then have to give it up, as my hands would become shaky and my whole body and mind in a quiver."

"This nervousness brought on severe headaches; it also brought a loss of sleep, all of which combined to gradually break down my health. I became run down and lost my appetite and performed my duties with no heart whatever. My friends recommended one medicine or another, and one of them suggested Dr. Williams' Pink Pills for Pale People. I bought a few boxes and followed the directions regarding their use. They restored my nerves to their normal and natural condition; they drove away the violent headaches and insomnia, and made me feel like a man who enjoyed life. I am now at times troubled with a headache while superintending the work at the mine, but the pills quickly and effectively dissipate it."

Mrs. Whann, too, is very enthusiastic in her praise of the pills. She has used them for headache and nervousness, and has recommended them to many of her friends.

Dr. Williams' Pink Pills contain, in a condensed form, all the elements necessary to give new life and richness to the blood and restore shattered nerves. They are an unfailing specific for such diseases as locomotor ataxia, partial paralysis, St. Vitus' dance, sciatica, neuralgia, rheumatism, nervous headache, the after effect of la grippe, palpitation of the heart, pale and sallow complexions, all forms of weakness either in male or female. Pink Pills are sold by all dealers, or will be sent post paid on receipt of price, 50 cents a box or six boxes for \$2.50, by addressing Dr. Williams' Medicine Company, Schenectady, N. Y.

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Grange Department.

OUR MOTTO:—"The farmer is of more consequence than the farm, and should be first improved."

Address all correspondence for this department to
KENYON L. BUTTERFIELD,
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News from Michigan Granges is especially solicited.

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THE GRANGE AND THE CHURCH.

Because of the fact that in some portions of the State there is more or less friction among the people of a neighborhood regarding the relation of their Grange and their church, we take this opportunity of giving what we believe to be the true view of the relation between the two.

The avowed purpose of the Grange is education, not in the narrow acceptance of the term as merely training the minds of the members to sharper thinking for the sake of self interest, but in a broad sense. The Grange is designed to, and does, educate its members to clearer thinking, broader reasoning, and the ability to express one's thought. It also gives its members a social education, fitting them for social life and political duties. But even more than that, the Grange educates its members morally. The Grange does not profess to be a religious organization, but at the same time the highest moral lessons are inculcated. No regular Grange meeting is held without an opening and a closing prayer; the ritual of the Grange is filled with beautiful allusions to the fact that this world of matter and of man is governed by a loving Heavenly Father. Every teaching of the Grange is toward a better manhood and a higher womanhood, toward a genuine spirit of fraternity and of brotherhood. The Grange deliberately and properly and gladly recognizes the "Divine Master."

We do not want anyone to think for a moment that we are here arguing that the Grange can take the place of the church. The church is a body whose work can not be done by any other organization, though it does not follow that the church can do all the work that other organizations can do. We argue therefore that the Grange has its place beside the church; not doing any of the church work, but doing work that the church cannot do. The fact that the Grange has a high moral standard only makes it a fit companion for the church, and does not make it a substitute for the church. Let it be distinctly understood that the Grange has the highest moral standards, and yet it is not a church, nor does it take the place of a church. Therefore there ought to be the heartiest co-operation between the two in every country community, and the members of neither should find fault with the work of the other organization; not only that, but there should be on the part of the members of each a glad desire to co-operate in the work of the other.

Once in a while, and right in connection with this subject, we hear of people opposed to the secret side of the Grange. We respect the sentiment of people who feel this way, but at the same time we believe that if they once understood the secret work of the Grange their opposition would cease. We believe, and we think that every other member of the Order believes,

that the secret work of the Grange is an advantage in every way. There are many reasons for this, which we do not need to give at this time as it does not concern this subject, but it does seem to us that there ought not to be any more objection to the secrecy of the Grange. The whole family is invited to the Grange, and surely where this is the case no harm can come.

GRANGE NEWS.

OLIVE CENTER GRANGE No. 652 meets regularly every Saturday evening with a good attendance and is in a thriving condition. We are taking in new members right along and we pride ourselves that we meet as many if not more times each year than any other Grange in the State. We average 52 meetings yearly.

FRUIT RIDGE GRANGE held a regular meeting April 9th. After the general order of business the fourth degree was conferred on 17 of the class, after which the usual fourth degree feast was served. The brothers furnished candy, and an enjoyable time was had by all.—F. L. ELLIOTT, COR.

IRONTON GRANGE No. 707.—We feel very much encouraged by the growth our Grange has made in the last quarter. We have instructed nine and have one application at present. We are now reaping the benefit of the Pomona Grange work. We have a good attendance and social time every Friday evening.—E. WILLIAMS, COR.

In another column we have mentioned some desirable points in correspondence for Grange News. As example is always better than precept, we call especial attention to the following news items. We want Patrons, and especially correspondents, to notice them. We believe we have never seen a better lot of Grange news in any paper than in this and the last issues of the FARMER.—K. L. B.

"It may sound like an exaggeration to say that, as to the future prosperity of this country, the matter of forest preservation and renewal is far more important than the tariff or the currency. But it is the sober truth. Nor is there anything to be lost. We have already sinned overmuch, and unless we make haste to stop the progress of ruin, and repair the injury done, our children will curse the wanton recklessness of their fathers."—CARL SCHURZ.

LIBERTY GRANGE No. 391 has initiated eight members during the last quarter, making a total membership of 85.

At our last meeting we voted to set aside \$50, to which is to be added about \$5 per month, for the purpose of building sheds for horses next fall.

We have spent about \$100 building cheap sheds which have been blown to pieces by the heavy winds. Now we intend to build something substantial, having found by experience that true economy does not lie in building narrow, cheap sheds.—F. G. PALMER.

ENSLEY CENTRE GRANGE No. 544 is "booming!" Although we have lost three of our oldest members in the past year, those that are left are taking hold with more vigor than ever. Last Saturday was one of those old "Grange revivals." Four new members were initiated and a feast followed.

Not only in a physical sense, but in an intellectual sense also, is our Grange improving. In one of our late meetings decided action was taken on bills of general importance before the legislature.

Tell our sister Granges that "the latch-string is out" at Ensley and that we are working. Several candidates have sent in applications. Good-bye; more anon with a more practical description of our work.—JAS. B. HASKINS.

BOARDMAN VALLEY GRANGE No. 664 celebrated the twelfth anniversary of its organization April 8th. Old-time reminiscences and chicken pies were the order of the day. This Grange has 106 names on its roll. Nine deaths have occurred among its members. The present active membership is about twenty-five. More than twenty Pomona and Subordinate Granges have been organized through its influence. We have two of the State Grange officers in our membership. Although our Grange is not large it is composed of earnest workers. Some of them have not missed three meetings in six years. One rather curious feature in the history of this Grange is the fact that all the preliminary work of organization was done without any outside help, and by those who knew little or nothing of the arrangement of a Grange. When all was in readiness Bro. C. G. Luce came and perfected the organization.

While we recognize that other Granges may have a larger membership than ours, it would take an unlimited amount of evidence to convince its members that a better Grange than No. 664 exists.—D. P. ROSENBERG.

GRATTAN GRANGE No. 170.—At our last meeting, April 8, there were four who took first and second degrees, three others being absent. With these will close our contest for new members. At the commencement of our contest we numbered 24 members; at the close, six weeks later, 100. The losing side gives a supper. Our captains were a brother and sister, and all members did their best to get new members. The sides were very evenly matched, only one point more for the winning side.

We are all proud of the result of our contest. It now remains to be seen whether or not we make use of the benefits which may be derived from the Grange. It depends on ourselves more than on anyone else, for it certainly offers us many opportunities for

gaining knowledge that cannot be had by the farmer elsewhere. Now that we have increased in numbers we hope to see much good work accomplished for the benefit of the farmer, socially, morally and financially, in our Grange. Let us strive to do each other good and thus maintain our fraternity.

The Grattan Union school and Grattan Grange will have Arbor Day exercises, and we hope to make it so interesting that it will be counted as one of the greatest events of the season.—MRS. KATE WATKINS.

OTTAWA GRANGE No. 30 is one of the oldest Granges in the State, having been organized June 7, 1873; it is in a prosperous condition, owning a nice hall and grounds at Herrington.

A newly-awakened interest in our Order has resulted in the organization of a juvenile Grange of twenty charter members, and the re-instatement of fourteen former members. At our last meeting, April 5, seven candidates were initiated into the fourth degree and treated to a bountiful feast.

An afternoon session was held, at which a pleasing literary and musical program was presented. The following question was discussed: "What is the best kind of potatoes and the best method of planting?" The general sentiment was in favor of early planting and level cultivation. Empire State, Rural New-Yorker 1 and 2, Ohio Junior, Carman No. 1 and Freeman were some of the choice varieties named.

We feel that an era of great prosperity is just commencing, not only for us as an individual Grange, but for all Granges throughout the State, and we feel like thanking the MICHIGAN FARMER for the work it is doing for the Order. May the good work go on!—CHARLES WELLS, COR.

DEWITT GRANGE No. 459 met at their hall April 3d, finding it well filled with earnest Patrons seeking light and knowledge. After the regular order of business the third and fourth degrees were conferred on one candidate, after which all feasted upon peanuts and candles.

The mortgage tax law was well discussed, we believing that its repeal would be a great injustice to the farmers of Michigan. The object of the law is to tax real values, and in many instances the mortgage contains all the value while the deed contains none. In some townships in this county it would reduce the taxable property at least one-sixth, which would have to be paid by the other five-sixths. The per cent of highway labor would also have to be increased in order that our roads receive the same amount of care. A remonstrance was sent to the legislature against its repeal.

The question relative to the salaries of State officials and employees was next discussed, we believing that they were fixed when profits in all kinds of business were much in excess of what they are at present, and that the purchasing power of the dollar has increased, and that there should be a corresponding reduction. As the Wagar Bill proposed some desirable changes, a petition was sent to the legislature urging its passage.

As we were expected to exercise our best judgment on election in regard to the Attorney General's salary, this was next in order. All seemed to agree that the present salary was too small for a State officer possessing the ability that he should possess, yet on the question as to whether the State would be better and more economically served there seemed to be a diversity of opinion. Some were opposed to raising any salary until a general revision was made, while some thought \$2,000 or \$2,500 was enough, and that they would have voted for it had the amount been so fixed.—J. D.

BANNER GRANGE 610 of Ionia county, extends greeting. Next to meeting with the brothers and sisters socially, at our own and adjoining Granges, is the privilege we have of greeting those at a distance, through the columns of the Grange department of the MICHIGAN FARMER.

Banner Grange during the past year has been keenly alive to its best interests. Old members are coming back, many new names have been added to our Order, and all meetings well attended with much interest manifested in all discussions. Numberless topics with the idea of bettering the conditions of home schools, and farming interests, have been brought to notice and adopted, but talks on taxation, advancing the district school system, and the good road question have taken precedence with us. Among the resolutions adopted and discussed are several worthy of note:

Resolved, that the use of county jail by the city, for disorderlies, and city purposes, is detrimental to the best interests of the taxpayers of the county.

This resolution was ably discussed and carried. Also adopted, discussed and carried by Pomona Grange held in Ronald township, and a committee appointed to arrange for presenting the resolution properly before the legislature.

Resolved, That we ask a law limiting the studies in the district school, that township boards shall consolidate districts of less than fifteen pupils, have power to issue certificates for teaching, and repeal the law establishing county commissioners.

This resolution was discussed by section, and caused lively debate, but failed to carry.

The last meeting of Pomona Grange was held with us, March 15th, and we had a very interesting session; also met in evening session for initiation of a class of six in the fifth degree. I do not wish to seem officious, but I would like to call the attention of those interested, to the fact that at the meetings of Pomona Grange the lecturers for the Subordinate Granges fall in most cases to bring or send reports of work done in their Grange for the quarter pre-

ceding the meeting of Pomona. Now this part of the work is one of the most important and beneficial in keeping the Pomona Grange in a thriving condition. By it we find what growth and progress other Granges are making, what resolutions of benefit to farmers have been adopted, exchange topics for discussion and each Grange becomes mutually interested in the work of the other. Besides this, if all reports were brought in or sent it would systematize the work in such a manner that the lecturer of Pomona would have some ground for working, in writing up reports for State Grange.

We have asked that a deputy lecturer be appointed to this district and expect in the near future to report good work done in the organizing of new, and re-organizing of dormant, Granges.

The young people of our Grange have developed a decided ability for money getting the past winter, in presenting dramas, giving socials and suppers, and have by this means added many conveniences to our hall.

Will the correspondent of some Grange where all members take an active part in debate, give us their method of presenting questions and interesting the sisters in the discussions so that all may take part? Please give us the benefit of your experience and some of your best topics. A general awakening of all members to the work of the Grange the coming season is worth striving for.—MRS. E. J. VAN DOREN, COR.

PUNCTUALITY.

(Paper read by B. R. Miller before Fremont Grange No. 494.)

On the great clock of time there is but one word—now.

While we are considering when to begin it is often to late to act.

When a fool has made up his mind the market has gone by.

In olden times postoffices were unknown and letters were carried by government messengers subject to hanging if they delayed on the road.

Even in the old, slow days of stage coaches, when it took a month of dangerous travelling to accomplish the distance we can now span in a few hours, unnecessary delay was a crime. One of the greatest gains civilization has made is in measuring and utilizing time. We can do as much in an hour to-day as they could in twenty hours a hundred years ago; and if it was a hanging affair then to lose a few minutes, what should the penalty be now for a like offense.

Cæsar's delay to read a message cost him his life.

Colonel Rahl, the Hessian commander at Trenton, was playing cards when a messenger brought a letter stating that Washington was crossing the Delaware. He put the letter in his pocket without reading it until the game was finished, when he rallied his men only to die just before his troops were taken prisoners. Only a few minutes' delay, but he lost honor, liberty and life.

Success is the child of two very plain parents—punctuality and accuracy.

Promptness takes the drudgery out of an occupation.

The mill can never grind with the water that has passed.

"The fact is," said the Rev. Sydney Smith "that in order to do anything in this world worth doing, we must not stand shivering on the bank, and thinking of the cold and danger, but jump in and scramble through as well as we can. It will not do to be perpetually calculating nice risks and adjusting nice chances. It did all very well before the flood, when a man could consult his friends for a hundred and fifty years, upon an adventure and then live to see its success or failure for six or seven hundred years afterwards, but at present a man waits, and doubts and hesitates and consults his brothers and his uncles and his cousins, until one fine day he finds that he is sixty years old, that he has lost so much time in consulting his friends that he has no more time left to follow their advice."

The energy wasted in postponing until to-morrow the duty of to-day, would often do the work. How much harder and more disagreeable, too, it is to do work which has been put off. What would have been done at the time with pleasure becomes drudgery after it has been delayed for days and weeks. Letters can never be answered so easily as when first received. Many large firms make it a rule never to allow a letter to lie unanswered over night. Putting off usually means leaving off, and "going-to" becomes undone.

Doing a deed is like sowing a seed; if not done at the right time it will be forever out of season. The summer of eternity will not be long enough to bring to maturity the fruit of a delayed action. If a star or planet were delayed one second it might throw the whole universe out of harmony.

Amos Lawrence's motto was: "Business before friends."

"How" asked a man of Sir Walter Raleigh "do you accomplish so much in so short a time?" "When I have anything to do I go and do it," was the reply. The man who always acts promptly, even if he makes occasional mistakes, will succeed when a procrastinator will fail, even if he have the better judgment.

"To-morrow is the devil's motto." All history is strewn with its brilliant victims, the wrecks of half-finished plans and unexecuted resolutions.

With most people the early morning hours become the test of the day's success. Daniel Webster used often to answer twenty to thirty letters before breakfast. In the hours of early morning Columbus planned

his voyage to America. Washington, Jefferson, Webster, Clay and Calhoun were all early risers. John Jacob Astor and Cornelius Vanderbilt were accustomed to rise at set times and to retire at definite hours, even though they had company. "Eight hours is enough sleep for any man."

There is one thing that is almost as sacred as a marriage relation—that is an appointment. A man who fails to meet his appointment, unless he has a good reason, is practically a liar, and the world treats him as such.

When Washington dined at four, new members of congress invited to dine at the White House would sometimes arrive late, and be mortified to find the President eating. "My cook" Washington would say, never asks if the visitors have arrived, but if the hour has arrived." When his secretary excused the lateness of his attendance by saying his watch was too slow, Washington replied, "Then you must get a new watch or I a new secretary."

Franklin said to a servant who was always late, but always ready with an excuse, "I have generally found that the man who is good at an excuse is good for nothing else."

Every man should have a watch which is a good timekeeper; one that is nearly right encourages bad habits and is an expensive investment at any price.

Wear threadbare clothes if you must, but never carry an inaccurate watch.

HOW THE GRANGE DEVELOPS THE WOMEN.

BY MARY CAMPBELL ROBERTSON.

May blessings rest upon the head of the woman who first suggested the idea that there was some place on this earth where woman could and should stand on an equal footing with that wonderful being called man, and that place the Grange. Until that time woman never realized that she was fit for anything except to love, cherish and obey, and cater to the wants of her husband. Since we have had the Grange there has been a marked change, and women have developed rapidly and wonderfully. The Grange has been a sort of an "eye-opener."

John Knox was with great difficulty persuaded to preach, because he thought he had no gift in that way; and when his friends suggested to him that he should go into the pulpit he burst into tears and went away and hid himself. Yet what an immense power he became in the pulpit when he once came to a realizing sense of his wonderful ability.

The Grange has taught women to know themselves. Like Knox, they thought they had no gifts within them, and were very much put about when called upon to take some stand; but the Grange is the magic key that has unlocked to the woman of the farm the door of "wonderland" and shown her the beauties which lie therein. Here she has caught glimpses of scenery which baffle her efforts at description; she has met people that she scarcely knew existed, such as the poet, the novelist and the historian; here are circles around which she thought she could never reach. How delightful! In this new world women have learned by degrees that they have intellect—brains. Think of it! The women of the Grange have learned to know themselves at last, and, taking advantage of that self-knowledge, their intellect has unfolded and expanded from day to day; their influence is felt everywhere; they have succeeded admirably in their different fields of labor, and have become an immense power throughout the land.

Another grand feature of the Grange. It has developed the social qualities of its women. We have become acquainted; our chain of friendship extends from the home Grange to the county, from the county to the State, and from the State to the nation—such friendship that we wouldn't exchange for all the wealth of the Indies.

Our beloved Order has developed all the characteristics pertaining to magnificent womanhood, and appreciates all the good things that are here for her enjoyment; she is glad of the sunlight, glad to be living; instead of repining she looks beyond the horizon of her home to see what she can do for fallen humanity and the bettering and uplifting of society. Yes, the building up process has begun; the sunshine has entered many homes already, and the impurities have, in a measure, been driven away. She has taken the hungry souls who were longing and dying for a breath of country air, and for a short time made this earth a paradise for them.

The Grange has done much for its women in the past, and its possibilities for the future are still greater, because the Order is growing and woman's work is broadening. I would like to proclaim from the housetops to the women of Michigan what the Grange has done for their comfort and delectation. I would like to preach Grange as Peter the Hermit preached the Crusades, not with the spirit of fanaticism, but with a spirit born of love and reverence for the noble Order that goes hand in hand with the church and awakens its women to a realizing sense of the possibilities and God-given qualities which lie within them.

Sisters of Michigan Granges, let us keep in touch with our noble Order and contribute to its success by being faithful. This is the age of new things and it keeps us busy to keep abreast with the times. Let us be true to ourselves and in that way help others, for "What we combine to do for our fellow man brings us nearer the

heavenly gates." Let us continue our educational work to a broader and higher extent; let us live for the good we can do, and learn for the sake of knowing God.—Hesperia.

THE EDITOR'S TABLE.

We are glad to see that so many Granges have already acquiesced in Worthy Master Horton's request to appoint correspondents to this department. We welcome you and invite your best work. It is for you to build up this department, rather than ourselves; it is for you to advertise in the best way your own home Grange; it is for you to be the means of distributing valuable information, and we want just a word with you, because it may help you and us both.

1. We want short, crisp items. Sometimes a postal card will contain the very best report.

2. The most important thing is to say something that will interest others. It may be interesting and it may not be if you say that "Jamestown Grange met Saturday night and had an interesting discussion on the Arbitration treaty." But we know that it will be decidedly interesting and valuable if you will say that, "at the last meeting of the Jamestown Grange the subject of arbitration was discussed, Brother Smith holding that there ought not to be the slightest opposition to the Arbitration treaty, that the United States should be the very first to declare for peace, and that the Senate's opposition is 'peanut politics,' while Brother Brown thought that there was no need of hurry, that the Senate has a right to take care of its own dignity, and that Great Britain so often gets the better of us that we ought to look out this time. However, the general sentiment of the Grange is in decided favor of an immediate ratification of the treaty."

Now this is information. We know by this item that Jamestown Grange is discussing a live topic, and we know what most of them think about it; this item of news means something to us, and gives the public an idea of what we believe. There are many more things along the same line; let us suggest some questions that correspondents may answer which will make the best news.

1. Is your Grange prospering? If so, in what way?
2. What do outsiders in your neighborhood think of your Grange and its work?
3. Have you many young people, and how do you get them?
4. What difficulties do you meet? What is most needed in Grange work in your vicinity?
5. In what way are your members most benefited by belonging to the Grange?
6. How do you conduct the special exercises, like Flora's day, Memorial day, etc.
7. How did you build your hall? (We wish some Grange would send us a plan of its hall, with specifications.)
8. Do you have plenty of music, and how do you get it?

These questions and many others suggest themselves. In fact, almost anything that is live would be good Grange news. About the only caution we have to make is, try to be brief, and try to leave out everything that will be taken for granted, or that doesn't mean anything to every Patron outside of your own Grange.

Now let us try to make this Grange news column the very best feature of our work.

At present writing the Our Legislature situation regarding Grange measures in the legislature is about the same as it has been for two or three weeks, with the following exceptions: The bill prohibiting the coloring of oleomargarine yellow to resemble butter has been signed by the Governor, and will go into effect ninety days after the session closes. It is stated that the oleo men will test it in the courts, but we have no fear of this, as a law precisely similar in Massachusetts has been sustained by the supreme court of the United States. The Kimmis salary bill has passed the House with a good majority, although it was somewhat mutilated. The indications are that it will also pass the Senate.

One of the most beautiful things about the Grange is that it includes the whole family; father, mother and the older children are provided for; all can have a part, and through the Grange can receive an education that can come in no other way. Is there any other organiza-

tion that does this so effectively as the Grange. The Grange, then, is simply a larger family; it is a combination of families and not of individuals, and therein it receives its greatest strength. The Grange requires something from every member of the family, and in return gives benefit to every member of the family.

It is not often that in this department we care to use essays on such general subjects as "Punctuality," but the little article on this subject, in this issue, is so pertinent to one great fault among people generally, and perhaps especially among farmers and in Grange work, that we publish it entire. So many people are sure to be at a meeting half an hour late, or they say that a meeting begins "about" such a time. Successful business men almost invariably have set hours for certain tasks and are never late at a business appointment. Many Grange meetings suffer materially because Patrons, or lecturers, or somebody, are half an hour late. We haven't enough "snap" in Grange work sometimes. We need to ponder the thoughts contained in the essay, especially if we are young and still in the habit-forming period. Let us apply the wisdom of the essay to our Grange labors.

FOR EVERY PATRON.

By what signs may we know the successful Grange?

Not the members who claim membership, nor the size of the Grange hall, but rather the results observable by all, and which speak of a true fraternity within and a sympathetic spirit which suggests and guides all acts and parts of its work. Faith, hope, charity and fidelity, as marked characteristics in all movements and the unreserved use of ritualistic forms and a loyal support of Grange laws that are intended to govern.

By what signs may we know the weak Grange and the one that is destined to destruction?

By the lack of fraternity and sympathetic harmony among its members. By the presence of members who desire membership without conversion to the importance of living up to their obligations and the necessity of complying with all legal and ritualistic requirements. By those in controlling numbers who idly sit and wait for someone to do something helpful for them instead of being active themselves in the use of the Grange organization as a means to help them.

To establish a fraternal feeling and sympathy among farmers because of the closeness of their interests, and in controversy of the disturbing and dividing influences of partisan politics is one of the grandest objects of the Grange.

The Grange is a fraternal organization, and the man who does not, and cannot, comprehend this and temper his acts accordingly, will do more harm than good as a member.

Reports and correspondence from Granges over the State show a marked improvement in all the essentials to success. Throw the excess ballast overboard and the Grange ship will sail more safely.

No act of a subordinate or county Grange is so sure to land it in the dormant and dead list as to carry slack-paying and delinquent members on the books and give them the same privileges that are enjoyed by those who pay promptly and thus truly keep in good standing. The Grange that gets into this rut is in a dangerous position, and heroic efforts, guided by prudence, are demanded to save it from destruction. The law is plain as to the requirements in paying dues, as is also the duties of the secretary and master of a Grange in supporting the laws. These officers should hew vigorously to the line, and at the same time temper their blows in such a way as will acquaint all members with the law and encourage them to cheerfully comply therewith. Make the Grange beneficial to all classes of its members and the work of enforcing good standing therein will be reduced to a minimum.—G. B. H.

Free to our Readers—The New Cure for Kidney and Bladder Diseases, Rheumatism, etc.

As stated in our last issue the new botanical discovery, Alkavis, is proving a wonderful curative in all diseases caused by Uric acid in the blood, or disordered action of the Kidneys and Urinary Organs. The New York World publishes the remarkable case of Rev. A. C. Darling, minister of the gospel at North Constantia, New York, cured by Alkavis, when, as he says himself, he had lost faith in man and medicine, and was preparing himself for certain death. Similar testimony to this wonderful new remedy comes from others, including many ladies suffering from disorders peculiar to womanhood. The Church Kidney Cure Co. of No. 418 Fourth Avenue, New York, who so far are its only importers, are so anxious to prove its value that for the sake of introduction they will send a free treatment of Alkavis prepared by mail to every reader of THE MICHIGAN FARMER who is a sufferer from any form of Kidney or Bladder disorder, Bright's Disease, Rheumatism, Dropsy, Gravel, Pain in Back, Female Complaints, or other affliction due to improper action of the Kidneys or Urinary Organs. We advise all Sufferers to send their names and address to the company and receive the Alkavis free. To prove its wonderful curative powers, it is sent you entirely free.

Veterinary Department.

CONDUCTED BY DR. W. C. FAIR.

Advice through this department is free to our subscribers. Each communication should state history and symptoms of the case fully; also name and address of the writer. The initials will only be given. When an answer is requested by mail it becomes private practice, and a fee of one dollar must accompany the letter.

INDIGESTION.—I have two cows that have not done well since the middle of winter. They do not have much appetite. M. F., St. Louis, Mich.—Give your cows epsom salts to open their bowels and keep them reasonably loose. Also give each cow one ounce ground gentian, one ounce ground ginger, one ounce bicarbonate soda three times a day, either in feed or drench them, mixing medicine with hot water.

MEGRIMS.—What can I do for my pigs? They have fits; three of them have had attacks at different times, each time when I was giving them morning feed. They fall over, squeal, kick and straighten out stiff, lie perfectly still for a minute or two, then get up and eat. They are 4½ months old. I feed boiled potatoes and turnips, mixed with ground feed and corn. E. J., Lisbon, Mich.—You should allow your pigs to have more exercise and give them less feed. Also give them ground gentian in their feed and keep their pen clean.

HOGS HAVE PILES.—Two of my small pigs are troubled with piles. The bowel protrudes about two inches. I feed cornmeal and milk. What brought on their trouble and what is the remedy? H. W. F., Niles, Mich.—Constipation and sudden exertion are common causes of piles. Apply acetate of lead one ounce, tannic acid one ounce, water one quart to sore parts three times a day. Keep the bowels open and they will soon get well. It may be necessary to remove the tumor with a knife before the lotion is applied.

ROARER.—When pulling hard or after any hard exercise my horse seems to have great difficulty in breathing; nostrils distend widely and there is a loud rush of air through them. It seems to be all in the head and throat; he does not heave, but puffs so you can hear him at a distance. I think he was driven hard when young; he is but eight years old. W. O. R., Howell, Mich.—Your horse is a roarer. Use him for slow work and apply tincture of iodine to throat once a day. I do not think he will recover entirely.

BRUISE—CRACKED HEEL.—The last time my horse was shod he interfered which caused a small sore. Two weeks ago it began to swell and cracked open where the sore was, also under the fetlock. It looked like scratches. I doctored for same but it kept on swelling and got very hot. Yellow matter exuded from the foot to the gambrel joint. What is the matter, and what is the remedy?—B. H. B., Ovid, Mich.—Poultice heel and fetlock joint with linseed and apply one ounce sulphate of zinc and one quart of water to sore parts three times a day. Feed some vegetables.

AZOTURIA.—A Berkshire sow, one year old, is to come in in four weeks; eats fairly well and is quite fat; had been kept in a pen 12x16, but when taking her out she was taken very suddenly and lost the use of hind quarters. She was in great pain for about five minutes. It is now a week, and she has no use of hind quarters at all. M. K., Tawas City, Mich.—Give your sow enough epsom salts to open bowels—two or three ounces at a dose—and injections of hot water and soap. Apply mustard and water to back twice a day. You fed your sow too much and she did not have enough exercise.

IRREGULAR STRANGLES — CRACKED HEELS.—1. A five-year-old horse came down with the distemper about the first of March. He swelled and broke between the jaws. Sore ran for a few days, then healed up. I thought he was getting well, but about a week ago his legs swelled quite badly below the gambrel joint, but swelling went away very soon and then his legs swelled the whole length and became quite hard. There is a bunch back of his forelegs, one on each side of breast and on the side of neck, and his nose is swelled. These bunches are about as large as my hand, but thicker. He eats quite well most of the time. I let him run out two hours a day when the weather is pleasant. Have exercised him some. 2. I have a mare that has the scratches. What shall I do for her?—J. S. Brighton, Mich.—1. Your horse has had an attack of irregular strangles (distemper). Give twenty grains quinine three times a day. Also keep him warm. When bunches soften, open them; they will either go away or open and discharge. Give half an ounce nitrate of potash twice a day until swellings go down. 2. Clip hair off mare's legs and apply a poultice of linseed meal every evening. Apply acetate of lead and sulphate of zinc, one ounce each, and water one quart three times a day.

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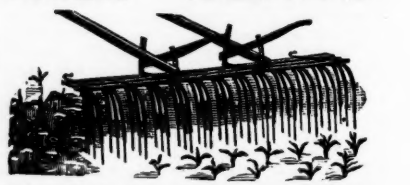
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